



# Biometrics and the Retail Banking Experience

How Financial Institutions and Their Customers are Adapting to a Future of Biometric Authentication

# Executive Summary

The use of biometrics is on the rise in many sectors, and there are clear benefits to the technology. Through the measurement of unique biological information such as fingerprints, individuals can be authenticated quickly and granted access to secure accounts, devices, and locations without the need for them to remember a password, carry an ID document, or enter a PIN. Thanks to the widespread use of the touch component on mobile devices, many consumers already enjoy the convenience and security of biometric authentication. They've even come to expect this level of convenience in other areas of their lives as well.

Still, some sectors have been slower to adopt biometrics than others. The technical rollout of physical biometrics capabilities can be a challenge, as is the effort to establish a framework for storing biometric data in a secure and compliant manner. There are also barriers to customer adoption. Not every consumer is comfortable providing a company with their biometric information.

Banks, credit unions, and other financial institutions have begun to explore the viability of using biometrics technologies in the physical branch space. Although

some organizations have already implemented biometric solutions, others are in the process of adopting them—and others still are wary of what adoption could mean.

This report will explore how financial institutions are currently using biometrics technologies in their physical branches as well as what role they expect biometrics to play in the next 10 years.



## Key Insights from This Report

Most respondents (**64%**) consider themselves “leaders” or “competitive” in the sophistication of their in-branch technologies, and most (**58%**) consider biometrics a viable technology for use in physical bank branches.



Among those who consider biometrics a viable technology, **51%** believe biometrics should be introduced in branches as soon as possible.



**79%** of respondents plan to adopt biometrics in their branches within 60 months and **9%** have already done so.



**56%** of respondents say preventing fraud and identity theft is the top business benefit of biometrics technologies, while **52%** say convenience for customers is the top benefit.



**65%** of respondents might consider biometric authentication only for sensitive transactions, but **53%** might consider it for general customer logins and teller transactions.



**54%** of respondents would prefer to have biometric scanners in their branches to increase the customer's perception of the security of branch-based processes.



Most respondents believe either a majority (**37%**) or an important segment (**35%**) of their customers are already comfortable authenticating themselves using their fingerprints.

# About the Study

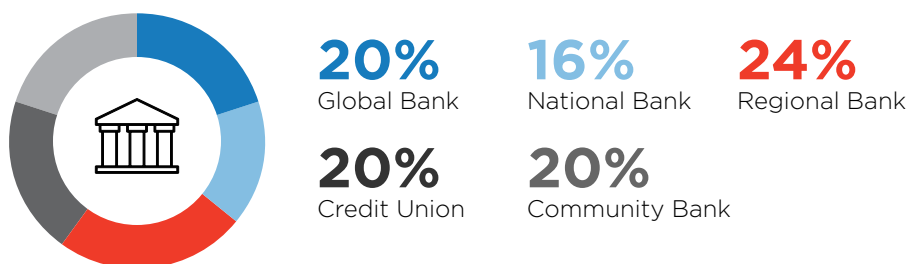
Panini and the WBR Insights team surveyed 100 retail banking executives in the U.S. and Canada.

In each case, 20% of respondents are from a global bank, a community bank, or a credit union. Meanwhile, 16% of respondents represent a national bank and a plurality of respondents (24%) represents a regional bank.

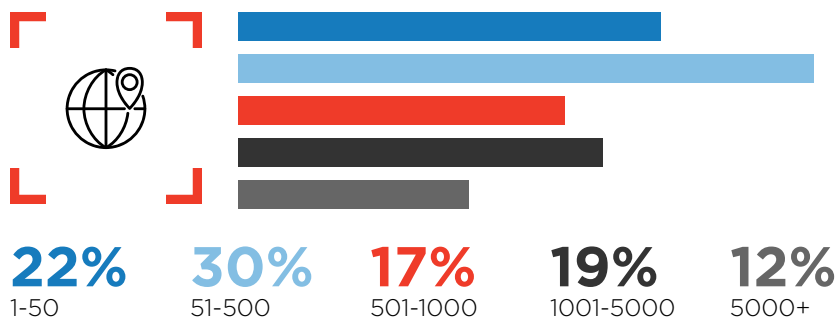
Almost half of the respondents (48%) represent banking institutions that have at least 501 branches or more. Almost one-third of respondents (30%) are from an institution with 51 to 500 branches and 22% are from an institution with 50 or fewer branches.

Most respondents have a role in either product management (19%), executive management (18%), or branch operations (17%). Of the remaining respondents, 16% are in channel strategy, 15% are in retail delivery, and 15% are in a customer experience role.

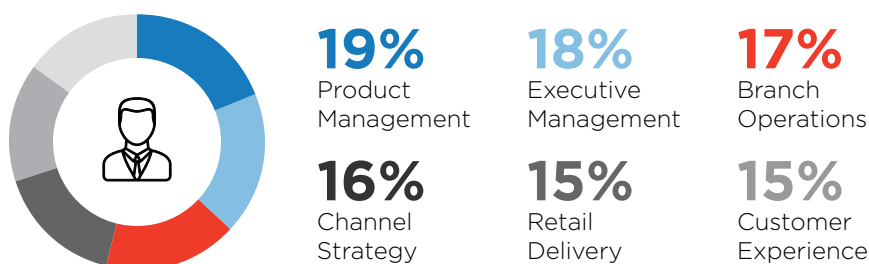
## How would you describe your company?



## How many physical bank locations do you have?



## Which best describes your role?



# Most Banks are Ready for In-Branch Biometrics, But Some Have Reservations

The banking customer experience has dramatically changed over the past decade. Many consumers have rapidly adopted mobile banking as their primary means of conducting everyday transactions like checking their account balance, transferring funds between accounts, and depositing checks. This has moved much of the banking experience online.

But the physical branch still plays a role in helping facilitate large and complex banking transactions. Taking out a loan or a mortgage, opening a new account, and resolving an account issue are all activities that many consumers still prefer to

conduct with a representative in a physical branch.

To accommodate their customers' changing expectations for convenience, banks are working to overhaul their in-branch experience with new customer-facing technologies as well as new operational and back-office solutions. The digital transformation of the banking branch is ongoing, and some institutions are ahead of their competitors.

At 64%, a majority of respondents feel that they are either "a leader" in their field (36%) or are "competitive" in their field (28%) when it comes to

the sophistication of their in-branch technology. Although the rest of the respondents feel that they are either average or behind when compared to their competitors, the 17% who do believe they are behind also believe they are making meaningful progress in implementing in-branch technology.

None of the respondents in this study feel that they are not making meaningful progress in this area, which suggests that most, if not all financial institutions are working to enhance the in-branch experience with new technologies.

## How would you rate the sophistication of your in-branch technology?



**36%**

We are already a leader in our field.

**28%**

We are competitive in our field.

**19%**

We are average compared to our competitors.

**17%**

We are behind our competitors, but we are making meaningful progress.

**0%**

We are behind our competitors, and we are not making meaningful progress.



Some of the technology banks have implemented in their branches include smart ATMs, video conferencing rooms, biometric readers, and even robots. However, respondents differ in their opinions on the practicality of biometric technologies, specifically. While a clear majority of respondents (58%) feel that biometrics are a viable technology for use in physical bank branches, 42% of respondents do not.

As we will find, some financial institutions are still concerned

about the implications of using biometrics in their branches despite the widespread adoption of the tools among consumers—most notably, the use of fingerprint authentication systems to unlock mobile devices, open apps, and confirm mobile shopping activities like purchases and downloads.

Among those respondents who think biometrics technology is viable in the bank branch, **51% believe biometrics should be introduced into physical branches as soon as possible.** In their view, biometric authentication

is already widely understood by their customers. They will not only accept but expect biometrics to be a regular part of the in-branch experience.

Still, 49% of these respondents believe biometrics should be introduced gradually into the physical branch space. They would prefer to wait for more industry-wide studies into the costs and benefits of the technology. They'd also like to know how users and customers respond to it.

**Based on your existing understanding of biometrics, do you see biometrics as a viable technology for use in physical bank branches?**



**58%**  
Yes  
**42%**  
No

**Those who said 'Yes'...**

**51%**  
Biometrics should be introduced into physical branches as soon as possible—the sooner, the better.

**49%**  
Biometrics should be introduced into physical branches gradually, pending an industry-wide review of the costs, benefits, user experience, and other factors.

**Those who said 'No'...**

**52%**  
I don't believe customers understand the value of biometrics well enough to see it as valuable.

**45%**  
I think the cost of the technology and requisite training exceeds the benefits it may provide.

**45%**  
I think introducing biometrics in physical branches will create more complications than process improvements.

**24%**  
I don't believe customers will be comfortable with biometrics in our physical branches.

**24%**  
I do believe customers will be comfortable with biometrics for use on their mobile devices.



Meanwhile, respondents who aren't sold on in-branch biometrics cite a variety of concerns for their response. At 52%, a slight majority of respondents don't believe their customers understand the value of biometrics, so it doesn't make sense to implement it in their branches. Similarly, 45% think introducing biometrics into their physical branches will create more complications than improvements—in other words, it would create more problems than it would solve.

In these cases, respondents appear to be concerned about the disruptions a new biometrics program could cause to their customers' experience as well as their branch operations. To convince the skeptics, solution providers will need to offer leaner methods of implementation, evidence of successful use cases, and perhaps even trials. Banks themselves may need to deploy the technology in prototype stores to establish a use case.

Naturally, some respondents are concerned about the costs. Forty-five percent of respondents believe the cost of the technology and the training behind it would exceed any benefit. This is an understandable response to new technologies,

but it may represent a common misconception about biometrics.

While biometrics technologies were considered cutting-edge not a decade ago, they are becoming more commonplace, and using them in the bank branch doesn't necessarily require a large technology footprint. A wide network of third-party providers can help banking institutions implement their in-branch biometrics program at a reasonable cost without much disruption. Furthermore, banks can implement biometrics technologies incrementally to save on upfront costs, focusing instead on seeing value in a few specific areas first.

Finally, 24% of respondents don't believe customers would be comfortable using biometrics in their physical branches. However, 24% also believe customers would be comfortable with biometrics for use on their mobile devices. Despite how comfortable they feel with their biometric smartphones, consumers may feel vulnerable using biometrics technology in a public setting, especially when it's clear that they are submitting their biometric information to an organization like a bank.

One solution to this issue is to provide customers with a digital authentication credential, which they can carry and use themselves. This would enable banks to provide the extra layer of security that biometrics provides without needing to hold customer biometric data in their servers. As we will see, some financial institutions aren't comfortable with storing their customers' biometric data, just as some customers may not be comfortable submitting it.



# Customer Confidence, Convenience, and Security Are the Key Benefits of In-Branch Biometrics

Because a majority of respondents claimed that they see a future for biometrics in the bank branch, researchers sought to determine what plans, if any, financial institutions have for the technology in the near future. The vast majority of respondents plan to adopt biometrics within the near future, albeit at different intervals of time.

Altogether, **79% of respondents plan to adopt biometrics in their branches within 60 months**, with almost half of respondents (46%) planning to adopt biometrics in the next 24 months. At 9%, a small but significant portion of respondents has already adopted biometrics in their bank branches. Meanwhile, only 7% of respondents have considered biometrics but don't plan to adopt it, and only 5% have not considered using biometrics in their branches.

This response contrasts somewhat with responses to the previous question, in which 42% of respondents said they don't see biometrics as a viable in-branch technology. It's clear that, despite some misgivings, most financial institutions are moving ahead with their biometrics programs to keep in-step with competitors and to normalize the technology according to consumer trends.

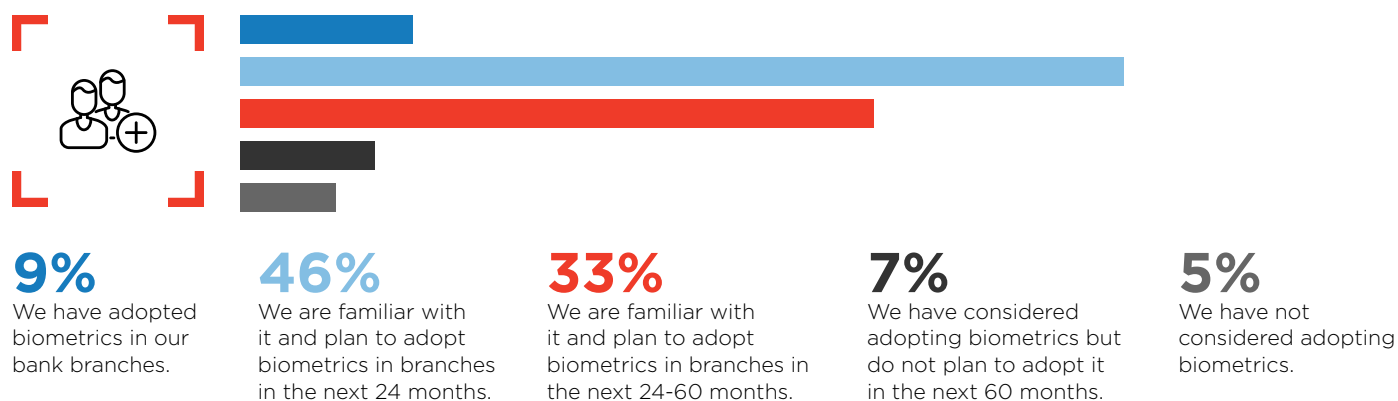
Researchers asked respondents who have adopted or plan to adopt biometrics what form their technology will take in their branches. They also asked them how they believe the technology will benefit their businesses.

These respondents plan to use a variety of biometric scanning technologies, but the three that emerge most prominently in their qualitative responses are fingerprint scanners, retinal scanners, and facial

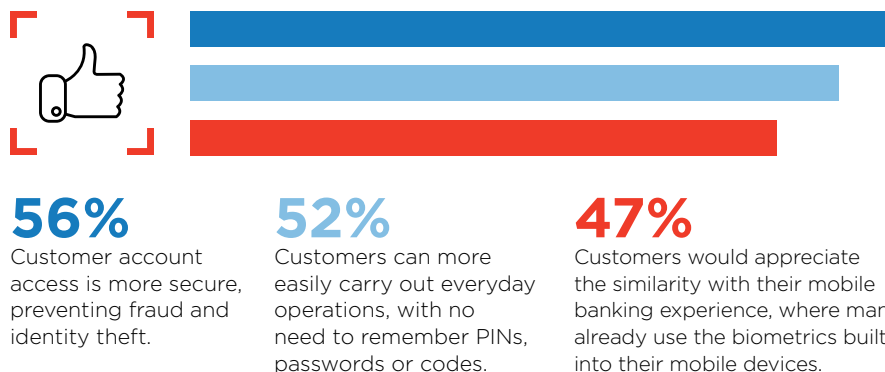
authentication technologies. Some institutions are rolling out these technologies in innovative prototype branches, while others are planning to implement them in some form throughout their branch network. According to one retail delivery executive at a global bank, "We can begin operating with new non-conventional digital bank branches that draw the attention of customers to visit bank branches, where we can make an effort to deliver personalized services to them."

Respondents also say there are myriad benefits to the technology—but protecting customers and inspiring customer confidence in the bank are the two benefits that are cited most frequently. For example, specific respondents say they believe biometrics will help to "build trust in customers," allow customers to "bank with confidence," and enable their bank to "finally have a system that doesn't allow frauds to take place."

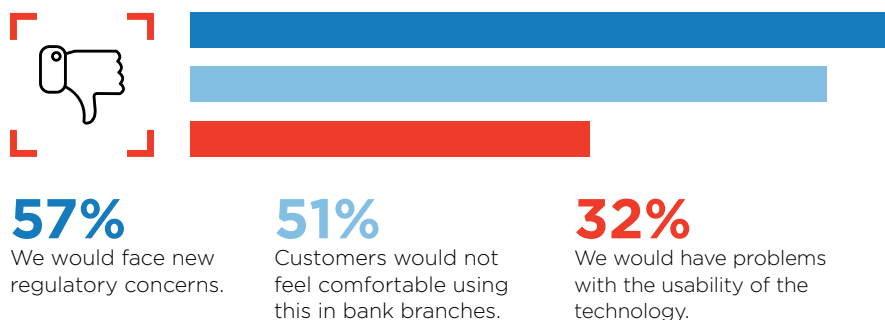
## What is your financial institution's plan with biometrics?



## What are the top business benefits of biometric technologies if you were to adopt them for your physical branches?



## What are the top business concerns of biometric technologies if you were to adopt them for your physical branches?



When given a selection of benefits to choose from, majorities of respondents say secure customer account access (56%) and the ability to carry out everyday banking activities with ease (52%) are the two top business benefits of biometrics technologies.

Still, others aren't convinced about the business benefits of the technology. One channel strategy executive at a regional bank says, "A secure operational framework is all that we expect with biometrics with no real advantage to business growth."

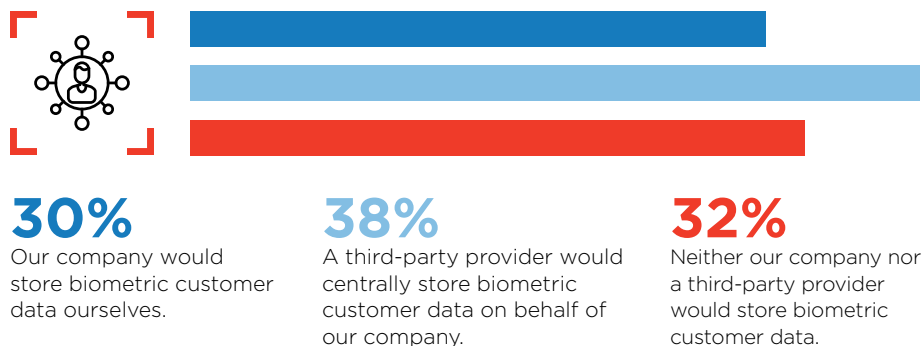
Even those respondents who are enthusiastic about in-branch biometrics have their concerns. At 57%, a clear majority of respondents are concerned that they would face new regulatory challenges because of the technology. This is understandable given the controversial nature of some biometric scanning solutions, such as facial recognition technology. Similarly, 51% of respondents are concerned that customers would not be comfortable using biometrics in bank branches, and 32% are concerned about the usability of the technology in the first place.

Based on this data, we can surmise that the implementation of biometrics in the bank branch is all but inevitable, but many financial institutions are still grappling with what the technology means for their business and their customers. Regulatory compliance could become a challenge in some markets, and some brands still need to find a way to deploy the technology that creates observable value.



# Banks Prefer Authentication Technologies That Make Compliance Easy

How would your company prefer to store biometric customer data?



To address the challenges of regulatory compliance and inspiring customer confidence in biometrics, brands will need to ensure both customers and regulators that they are collecting, storing, and using biometric data in good faith. However, there are multiple ways to use biometric authentication that don't require banks to jump over the regulatory hurdles presented in legislation like the EU's GDPR.

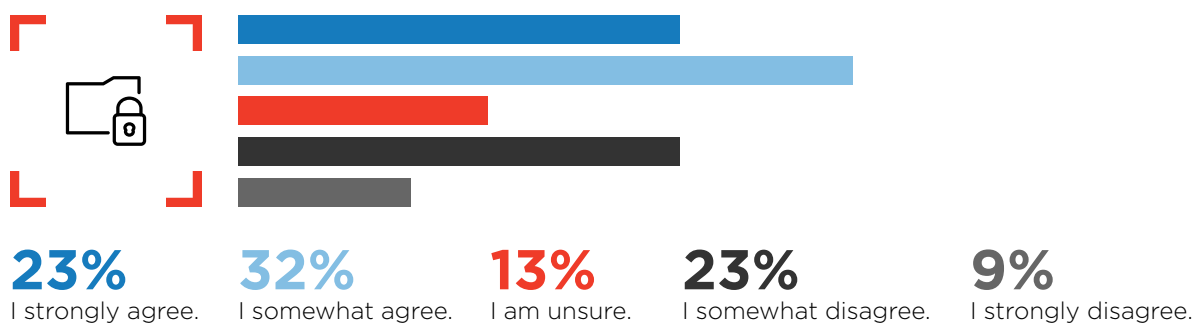
Only 30% of respondents say they plan to store biometric customer data themselves. This

would require them to establish a compliant framework for storing data, as well as the capability to destroy that data at the request of their customers. Building such an environment in-house can be expensive and comes with a certain amount of risk, which is why 38% of respondents would prefer a third-party provider centrally store biometric customer data on behalf of the company.

Interestingly, 32% of respondents say neither their company nor a third-party provider should

store biometric customer data. These brands would prefer an alternative to traditional methods of collection and storage. One way to accomplish this is to provide customers with their own authentication devices, which they can manage themselves. This puts more control into the hands of the customers and frees the company from much of the regulatory burden associated with storing biometric data.

Do you agree or disagree with the following statement: "Most of our customers would not take issue with carrying and using an encrypted digital credential provided and certified by our bank, but with no biometric data being held by the bank"?



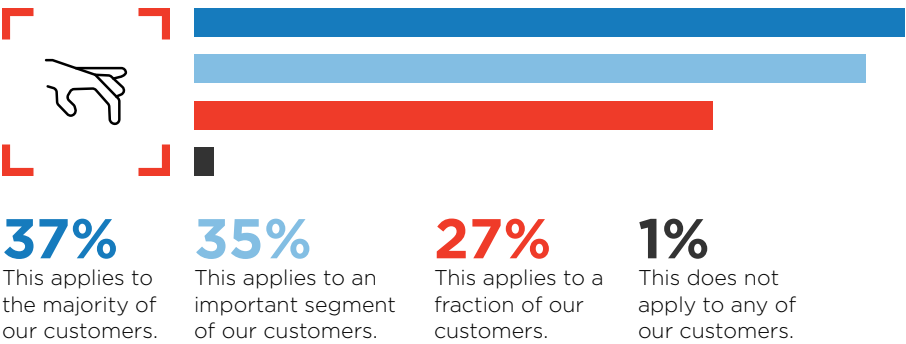
Indeed, a majority of respondents (55%) either “somewhat” or “strongly” agree that most of their customers would not take issue with carrying and using an encrypted digital credential provided and certified by the bank, with the knowledge that no biometric data is being held by the bank itself. This suggests that using a digital credential might be a viable option for banks that are unsure about storing their customers’ biometric data.

Naturally, customers themselves will have the final say in how banks collect and manage their data. Presently, one of the most reliable forms of biometrics technology is the fingerprint scanner, which can be used in conjunction with an encrypted digital credential to ensure security.

At present, 37% of respondents believe that a majority of their customers are already comfortable with fingerprint scans and 35%

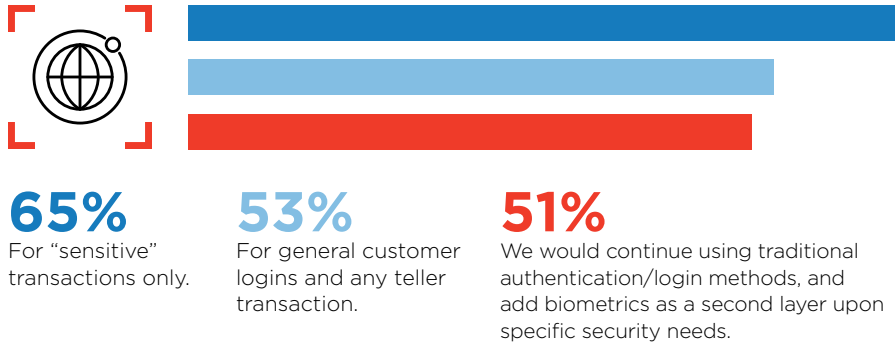
say an “important segment” of their customers are comfortable with the technology. Only 28% of respondents say only a fraction of their customers or less are comfortable with the technology. This makes fingerprint scanners and encrypted digital credentials two of the most promising authentication technologies available.

**To what extent are your customers already comfortable authenticating themselves using their fingerprints?**



# Banks May Begin Adoption to Both Secure Sensitive Transactions and Improve Customer Relationships

For which operations might your company consider using biometric authentication?



Respondents made clear their hopes and concerns for in-branch biometrics, but they also indicated that most financial institutions are either exploring the technology or in the process of adopting it regardless of the perceived drawbacks. Given this fact, researchers asked respondents how they think they might use the technology if they were surely bringing it to the bank branch.

At 65%, most respondents say they would use the technology only to secure "sensitive" transactions, such as those with a high dollar amount. This would ensure the most valuable transactions are protected against fraud while relieving everyday bankers of the need to submit biometrics data for general transactions. This is a popular

alternative to full biometric adoption, as it would add much-needed security without as much disruption.

Nonetheless, 53% of respondents say they would use biometrics for general customer logins and any teller transaction. This would provide blanket protection to every in-branch transaction but require customers to submit biometrics to complete them.

The third option was less popular with respondents. However, 51% said they would continue using traditional authentication methods, but add biometrics as a second layer for specific security needs. Likely, they would only apply biometrics to highly sensitive transactions or instances with a high potential for fraud or loss.



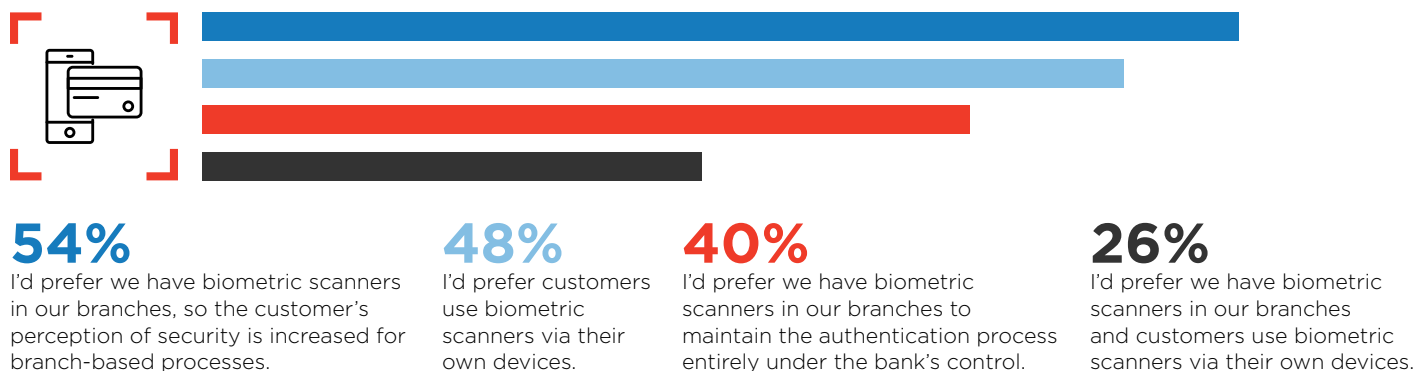
Regarding their customers' use of biometrics, a majority of respondents (54%) would prefer to have biometrics scanners in their branches where customers can see them. This indicates that most respondents are interested in the technology's psychological benefits—how it could benefit their

customers' perception of the bank's security in addition to security itself.

Fewer respondents would prefer customers to use biometrics scanners via their own devices (48%), and fewer still would prefer both options at once (26%). Finally, 40% of respondents would prefer

biometric scanners in their branches because it would give them control over the authentication process. Although security and control are key benefits of the technology, respondents appear to be most interested in how biometrics could impact their customer relationships.

## Assume you have chosen to adopt a biometric technology for your company. How would you prefer your customers use biometrics?



## Conclusion

In their final line of questioning, researchers asked respondents about their predictions for how biometrics will be used in retail banking over the next 10 years. They also asked if they believe the technology is a positive development in the industry.

There is a clear consensus among respondents that biometrics will be fully implemented in the retail banking environment within the next 10 years. According to one branch operations executive at a credit union, "Biometrics will be everywhere, and customers and employees will both use this to identify and authenticate themselves." Another executive at a credit union says, "I think biometrics will completely overtake the job of a signature in the banking industry over the next 10 years."

Others describe the technology as "highly secure and sustainable," and believe that "there cannot be anything more secure" than biometrics. Most respondents also believe biometrics will be a benefit to the industry. They believe it will create a "dispute-free banking environment" and that it will "speed the process of self-service branches in the future."

Still, some respondents aren't sold on the disruptive nature of biometrics. They see it as a benefit, but they don't believe it will dramatically change the business. According to one customer experience executive at a national bank, "Biometrics will only be used as a security feature; it won't change the fundamentals of banking at any point in the future."

One product management executive at a global bank has a much grimmer view of the technology for the in-branch experience. "I fear that in the next 10 years, there could be no bank branches and customers' hand-held devices, operating on AI, will be able to handle all banking services for them by just recognizing their voice," they say.

While almost every respondent agrees that biometrics will be a part of retail banking's future, they disagree somewhat on how it should be used and what it means for the industry. It will be up to each bank to determine how best to deploy the technology per their customers' needs. Within the next few years, we are likely to see different levels of deployment across the world's bank branches. Only then will we be able to benchmark which approach is best, and for whom.

# About the Authors



Founded in Turin, Italy, Panini has enabled clients to capitalize on shifts in the global payments processing market for seventy-five years. Panini has a rich history of technology innovation, leveraging the company's expertise in research & development. Panini's market leading solutions are based on state-of-the-art engineering resources and ISO 9001 quality certified production. Panini boasts the world's largest deployed base of check imaging systems and offers an expanding range of branch transformation solutions including intelligent capture, instant issuance, and secure identity options for reliable and user-friendly identity verification and customer authentication. The company operates on a global scale and has direct subsidiaries in the United States covering North America and in Brazil covering Latin American markets.

For more information, please visit [www.panini.com](http://www.panini.com).



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Future Branches, a three day networking event, brought to you by the organization that puts on both NetFinance and Future Stores, will explore how financial institutions are capitalizing on their physical spaces by revamping in-store technology, revitalizing their front line associates and reimagining branch processes to meet the ever-changing demands of their customers.

For more information, please visit [futurebranches.wbresearch.com](http://futurebranches.wbresearch.com).



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