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OCTOBER 2017

INNOVATION

READINESS INDEX™

A 2017 EXAMINATION OF THE FI PAYMENTS LANDSCAPE

70%

of FIs with flexible IT infrastructure

said their recent innovations were extremely successful, *more than twice as high as the average*

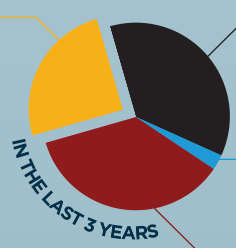
36.3%
of FIs said INFORMATION TECHNOLOGY SYSTEMS made innovation hard or very hard

63.0%
of FIs identify meeting a CUSTOMER NEED as the main driver for innovation

54.2%
of innovations coming in the next three years will focus on PAYMENT TECHNOLOGY

56.5%
of innovations in the last three years have focused on DIGITAL WALLETS

25.5%
OF FINANCIAL INSTITUTIONS FOCUSED ON NEW PRODUCTS



35.8% FOCUSED ON NEW FEATURES OF EXISTING PRODUCTS

2.8% DID NOT FOCUS ON INNOVATION

35.8% FOCUSED EQUALLY ON NEW FEATURES AND NEW PRODUCTS

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ACKNOWLEDGMENT

Innovation Readiness Index™ was done in collaboration with i2C and we are grateful for their support and insights. PYMNTS.com retains full editorial control over the findings presented as well as the methodology and data analysis.

KEY FINDINGS

THESE RESULTS WERE BASED ON PERSONAL INTERVIEWS WITH 214 FIS HOLDING FEWER THAN $25 BILLION IN ASSETS.
MORE THAN 77 PERCENT OF OUR SAMPLE HELD BELOW $25 BILLION, THOUGH THE TYPICAL FI BOASTED BETWEEN $5 BILLION AND $25 BILLION IN ASSETS AND HAD 25 OR FEWER BRANCHES.

FIS ARE MORE WORRIED ABOUT COMPETITION FROM BIG BANKS THAN FINTECHS.

INFORMATION TECHNOLOGY (IT) SEEMS TO HOLD BANK'S INNOVATION BACK.
More than 36 percent of FIs said IT systems made innovation hard or very hard,
while **70.0 PERCENT** of FIs
with flexible IT infrastructure said their recent innovations were extremely successful.

54.2%
of FIs report having more funding allocated to payments innovation than other bank products or services.

Most FIs focus innovations on a mix of new features and products.

MORE THAN
64% of FIs
either focused on innovations involving new products (25.5 percent) or on a combination of new products and features (35.8 percent).

KEEPING CUSTOMERS HAPPY tends to drive bank innovation agendas. Data showed **63.0 PERCENT** of FIs identify meeting a customer need as the main innovation driver.

40.0%
of top performers use sandbox-to-scale functionality, while 83.6 percent said their core processing systems lacked a sandbox for testing innovation.

LARGER BANKS FOCUS MORE ON ROLLING OUT NEW PRODUCTS, WHEREAS SMALLER BANKS FOCUS MORE ON NEW FEATURES.

In fact, 42.5 percent of financial institutions (FIs) report they are quick to catch up with their larger bank competitors, while 37.9 percent say they roll out new products before others.

INTRODUCTION

When it comes to innovation in payments, the hip new alternative finance players — from Bitcoin-based startups to Lending Club to Venmo — get much of the press. In fact, hardly a week goes by without an article on cryptocurrency in the *Wall Street Journal*, and a hardly a day goes by without one in tech media like TechCrunch.

They have benefited enormously from innovation led by FIs over the last decade, from ATMs that provide an increasing variety of services to mobile banking, one of the apps types most commonly used by smartphone users.

Of course, very large banks, such as JPMorgan Chase, have the money to invest in innovation. They can grow their own or buy companies, such as up-and-coming FinTechs, to introduce new products and features to their customers. The majority of FIs, however, are relatively small. The 25th largest FI in the U.S. in 2016 has assets of $116.38 billion.[2] As of June 2017, there were nearly 11,565 FIs with fewer than $116 billion in assets, and they accounted for just 28.1 percent of total bank assets.[3]

Between being traditional and simultaneously lacking the deep pockets of a large brand, one might think FIs outside the Top 25 innovated about as often as the local taxi company. But, we surveyed financial institutions about innovation — defined as both the implementation of wholly new products and new features for existing products — and the results show that view is quite wrong.

We conducted a detailed survey of payments executives at FIs to study payments innovation in these institutions, excluding the largest 25 U.S. banks. We obtained a sample of 214 respondents representing the complete size distribution of various types of FIs throughout the country, and this study was done in collaboration with payments solutions provider i2c Inc.

These institutions are highly focused on payments innovation and are continually planning, budgeting for and introducing new products and, more often, new features to existing products.

That's hardly a surprising result when one thinks about it. In the highly competitive marketplace of consumer payments and banking, FIs are slugging it out with one another as well as with very large banks and digital players.

According to our observations, FIs with assets exceeding $100 billion see their competition coming primarily from their larger peers and FinTech companies.

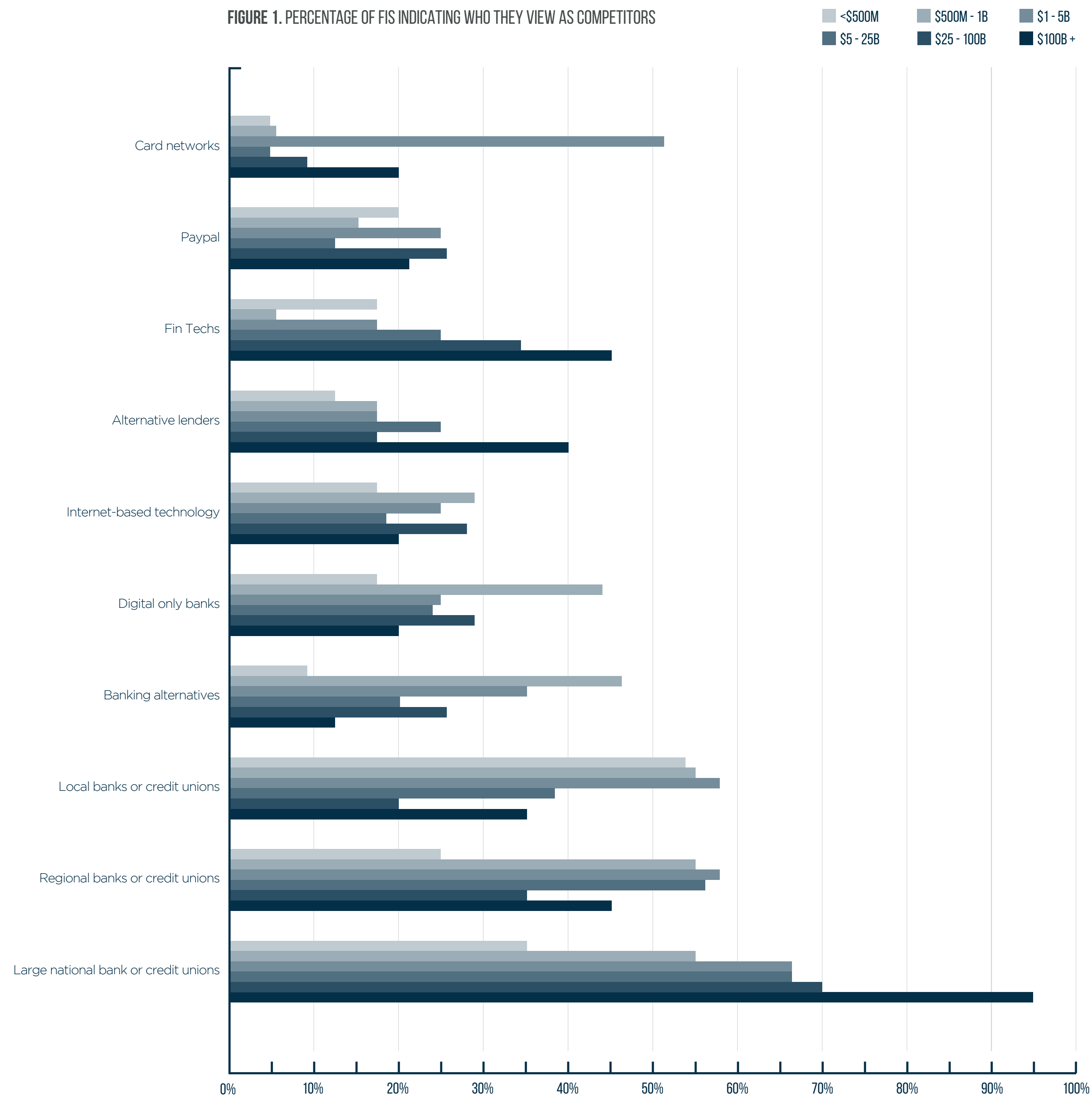
[1] Farber, Madeline. The percentage of Americans without bank accounts is declining. Fortune. Sept. 8, 2016. http://fortune.com/2016/09/08/unbanked-americans-fdic/. Accessed Oct. 2017.

[2] The Federal Deposits Insurance Corporation (FDIC) identifies M&T Bank Corporation as the 25th largest bank in the U.S. As of June 2017, it had more than $116.38 billion in assets, according to a bank holdings companies search).

[3] Based on data from the most recent FDIC and National Credit Union Association (NCUA) reports.

Nearly 50 percent of FIs view FinTech companies as their top competitors, including PayPal. In fact, results showed FIs see PayPal as posing a significant threat to approximately 25 percent of banks with $1 billion to $5 billion in assets and nearly 20 percent of banks with $100 billion or more in asset value.

FIGURE 1. PERCENTAGE OF FIS INDICATING WHO THEY VIEW AS COMPETITORS

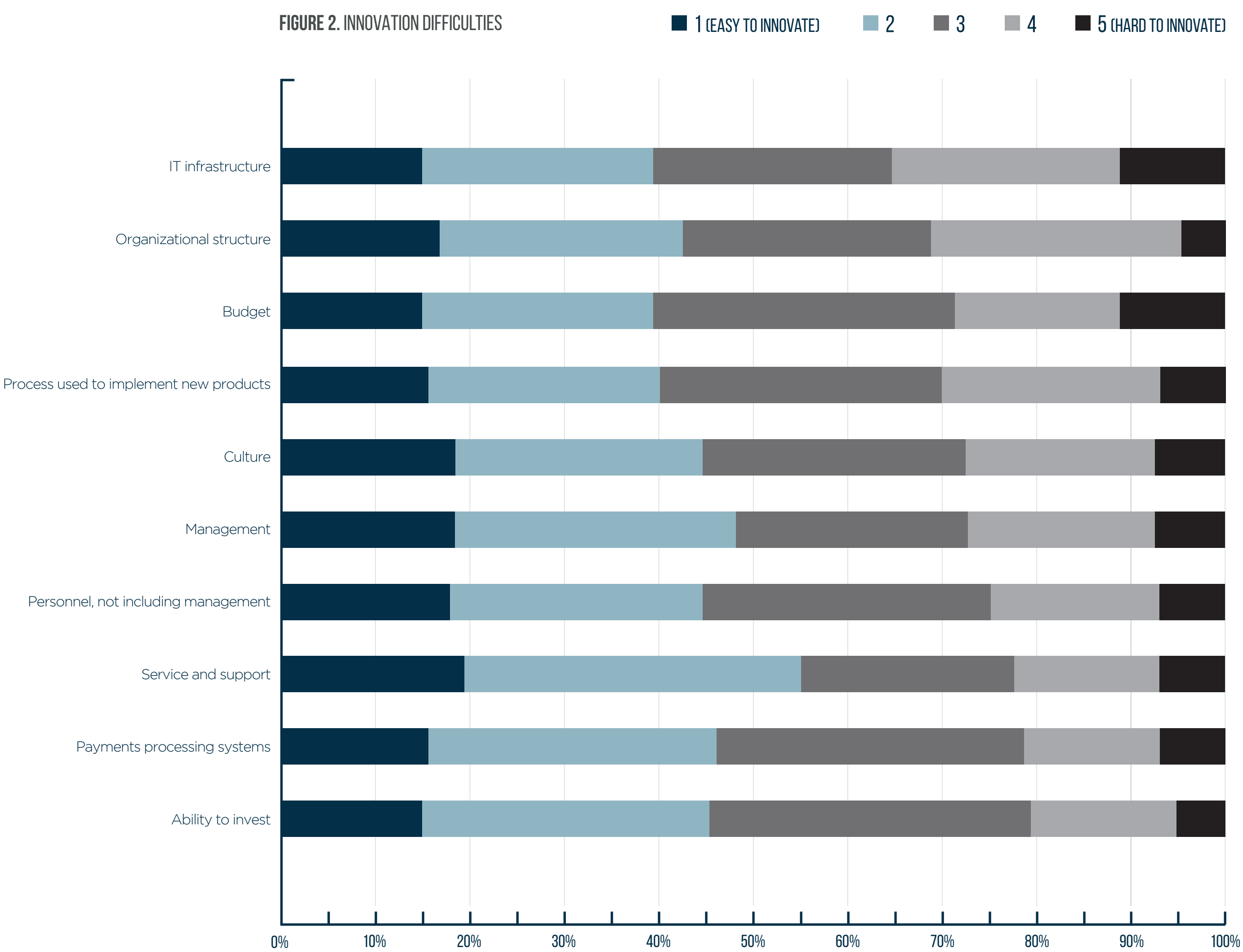


On the other hand, nearly 20 percent of FIs with assets valued at less than $500 million view PayPal as a competitor. No matter the size, it's clear that delivering the innovative solutions that make it easier for consumers to access and use their payments credentials is table stakes — and, therefore, critical to their survival.

As critical as innovation is to banks, it's not an easy row to hoe and these FIs face challenges. Top among them, as we've mentioned, is IT, an element which often holds FIs back from getting new features and products to market as quickly as they'd like.

More than 36 percent of FIs said their existing IT infrastructure made payments innovation hard or very hard.

FIGURE 2. INNOVATION DIFFICULTIES



It makes sense. Almost every payment innovation touches IT systems, including core processing, so FIs must work with and around their existing IT systems to make innovation happen — and happen quickly. These challenges, however, are solvable.

What's more important to note is that these FIs, from small credit unions to large regional banks, have the desire to innovate. In fact, payments innovation is one of the better funded areas within these FIs, and they report they are constantly innovating as a result. Almost all have recently introduced new products or features. Most often, though, these institutions are introducing new features that help them play catch up with each other and with the largest FIs in the country.

Aside from describing our survey, this report addresses five key issues surrounding payments innovation at FIs:

HOW **INTENSE IS THE FOCUS** ON PAYMENTS INNOVATION AT FIS?

WHAT ARE THE **TYPES OF PAYMENTS** INNOVATION ON WHICH FIS ARE CURRENTLY AND IN THE FUTURE?

WHAT **STIMULATES OR HINDERS** PAYMENTS INNOVATION AT FIS?

WHAT ARE **THE LEADING FACTORS** BEHIND DEPLOYING SUCCESSFUL INNOVATIONS?

WHICH **ATTRIBUTES** ARE LEADING THE TOP PERFORMERS TO RISE TO THE TOP?

SURVEY

The average financial institution covered in our sample has assets of $1 billion to $5 billion and 25 or fewer branches, as shown in Figures 3 and 4. Our sample was divided almost evenly between commercial banks, community banks and credit unions.

Each of the respondents had significant influence over the payment or retail and online/digital banking operations of the institution at which he or she worked. Respondents filled out a detailed survey consisting of 34 questions concerning payments innovation at their institutions. The survey was conducted during September 2017, and this report is based on those responses.

FIGURE 3. DISTRIBUTION OF RESPONDENTS BY ASSETS

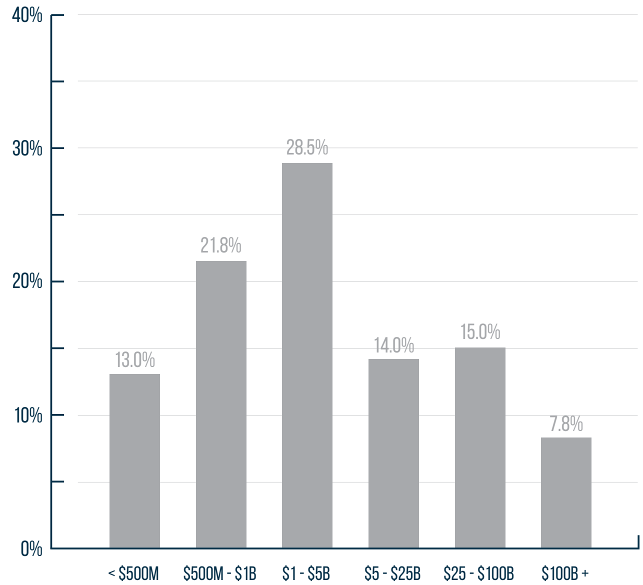
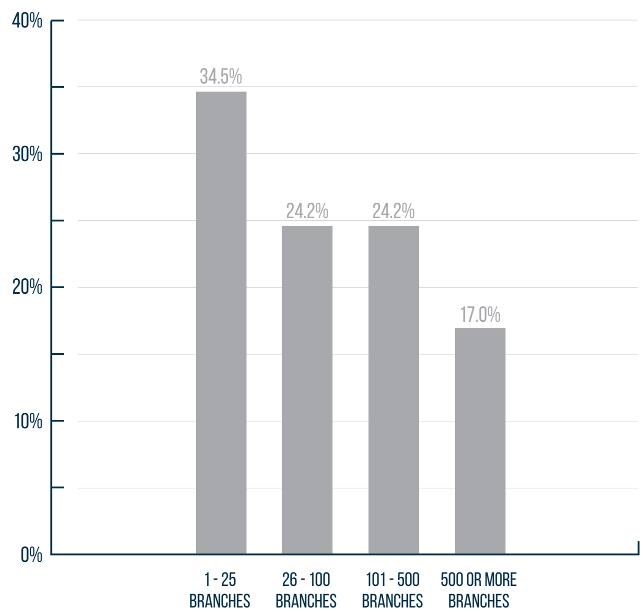


FIGURE 4. DISTRIBUTION OF RESPONDENTS BY NUMBER OF BRANCHES



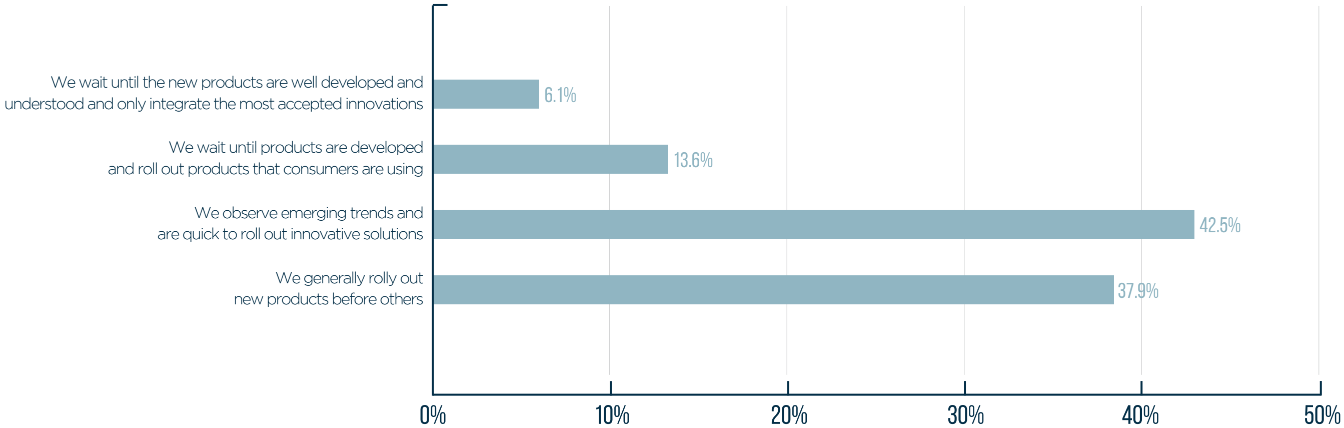
HOW INTENSE

IS THE FOCUS ON PAYMENT INNOVATION AT FINANCIAL INSTITUTIONS?

The short answer is this: very intense.

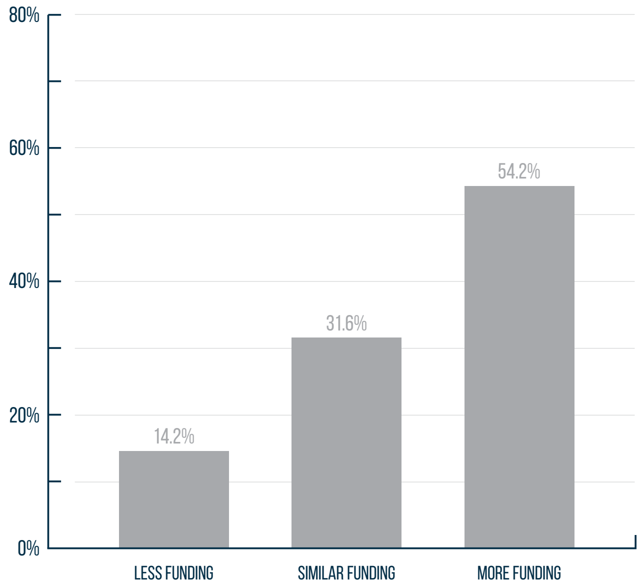
Almost all FIs say they are innovators. In fact, **just 2.8 percent said they had not focused on innovation in the last three years.** As shown in Figure 5, 37.9 percent of respondents said they generally roll out new products before others in the field. Another 42.5 percent said they are quick to catch up, observing emerging trends and then moving quickly to roll out innovative solutions. As such, the vast majority of FIs say they are trying to stay ahead through innovation by introducing new products or new features for existing products.

FIGURE 5. INNOVATION INTENSITY PROFILE OF INSTITUTION



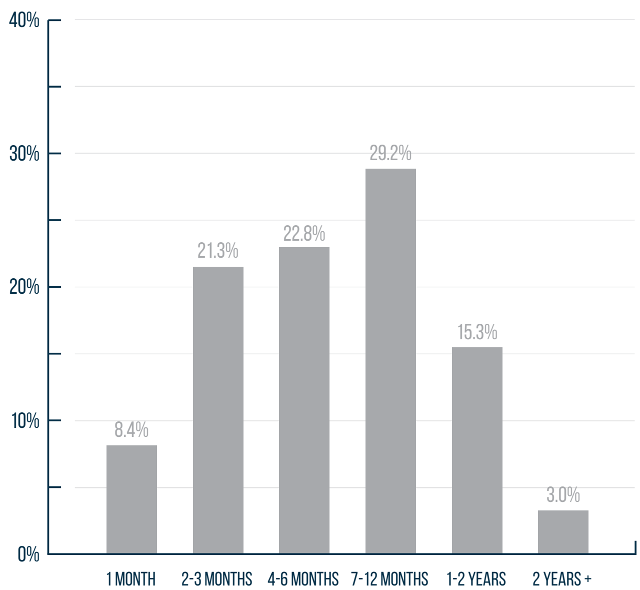
And, there's money behind this commitment to innovation. More than half (54.2 percent) said the payments business gets more funding for innovation than other business unit at the institution. Only 14.2 percent said the payments business gets less funding, as shown in Figure 6.

FIGURE 6. PAYMENTS INNOVATION FUNDING COMPARED TO FUNDING FOR INNOVATION IN OTHER BUSINESS UNITS



The FIs are agile at introducing innovation quickly, as shown in Figure 7. More than half (52.5 percent) indicated it took less than six months to go from the identification of the need to the actual rollout of the innovation. In fact, more than 81 percent took less than a year.

FIGURE 7. TIME FROM DEVELOPMENT OF NEED TO DEPLOYMENT



FOCUS OF INNOVATION FOR LARGER FIs: **NEW PRODUCTS VERSUS NEW FEATURES**

Most of the FIs aren't focusing on just buffing up existing products with new features, as shown in Figure 8. Nearly two-thirds (64.2 percent) of the total group either focused on innovations involving new products (25.5 percent) or on a combination of new products and features (35.8 percent).

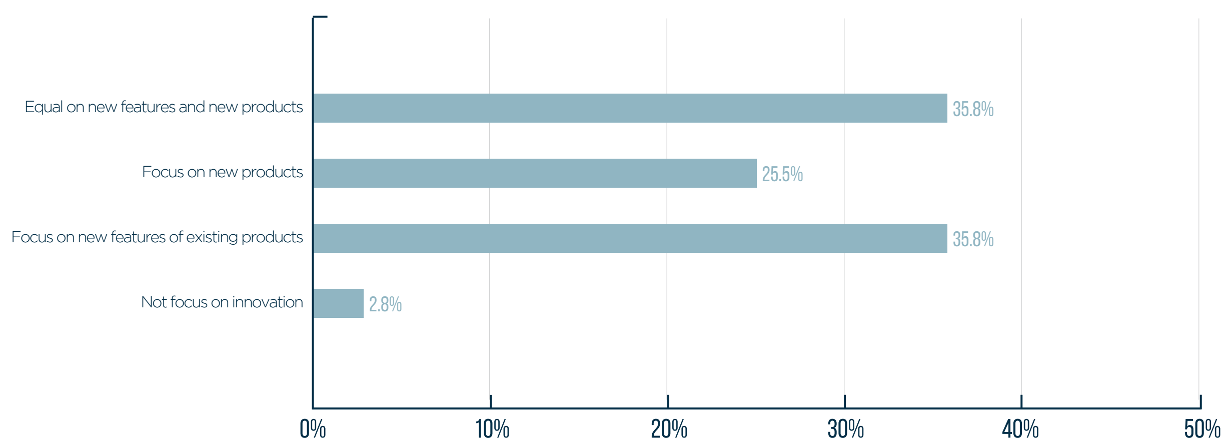
While new features are certainly important for consumers, new products are likely to result in much more significant advancements — FIs' focus on new products is therefore important. According to respondents, 32 percent of recent innovations have involved a new product rather than a feature of an existing product.

Overall, 68 percent of recent payments innovations were a result of FIs introducing new table stakes features to compete with other banks and with the largest FIs in the country.

It's worth noting that larger banks, with assets exceeding $5 billion, focused more on rolling out new products as their most recent innovation compared with other FIs. New product rollouts were the most recent innovation for 37 percent of FIs with between $5 billion and $25 billion in assets and 41 percent of FIs between $25 billion and $100 billion. In comparison, new features were the latest innovation for just 22 percent of FIs between $5 billion and $25 billion, and 33 percent of FIs with fewer than $1 billion in assets.

This implies that for FIs to stay competitive with larger regional FIs, the focus should be more on introducing new payments products instead of just rolling out innovative features.

FIGURE 8. PAYMENTS INNOVATIONS FOCUS IN LAST THREE YEARS



To better understand the impetus behind innovation, it is useful to analyze the entities FIs consider their competitors. FIs naturally view each other and larger FIs as their main competitors. A significant fraction of FIs, though, identify digital businesses as competition, as well. Approximately 20.6 percent of respondents identified one of the global online platforms (Apple, Amazon, Facebook and Google) as competitors and slightly less than one-fifth identified PayPal (17.3 percent), alternative lenders (17.3 percent) or FinTech firms (17.8 percent). In fact, more than half (57.8 percent) identified one of these digital categories as a competitor.

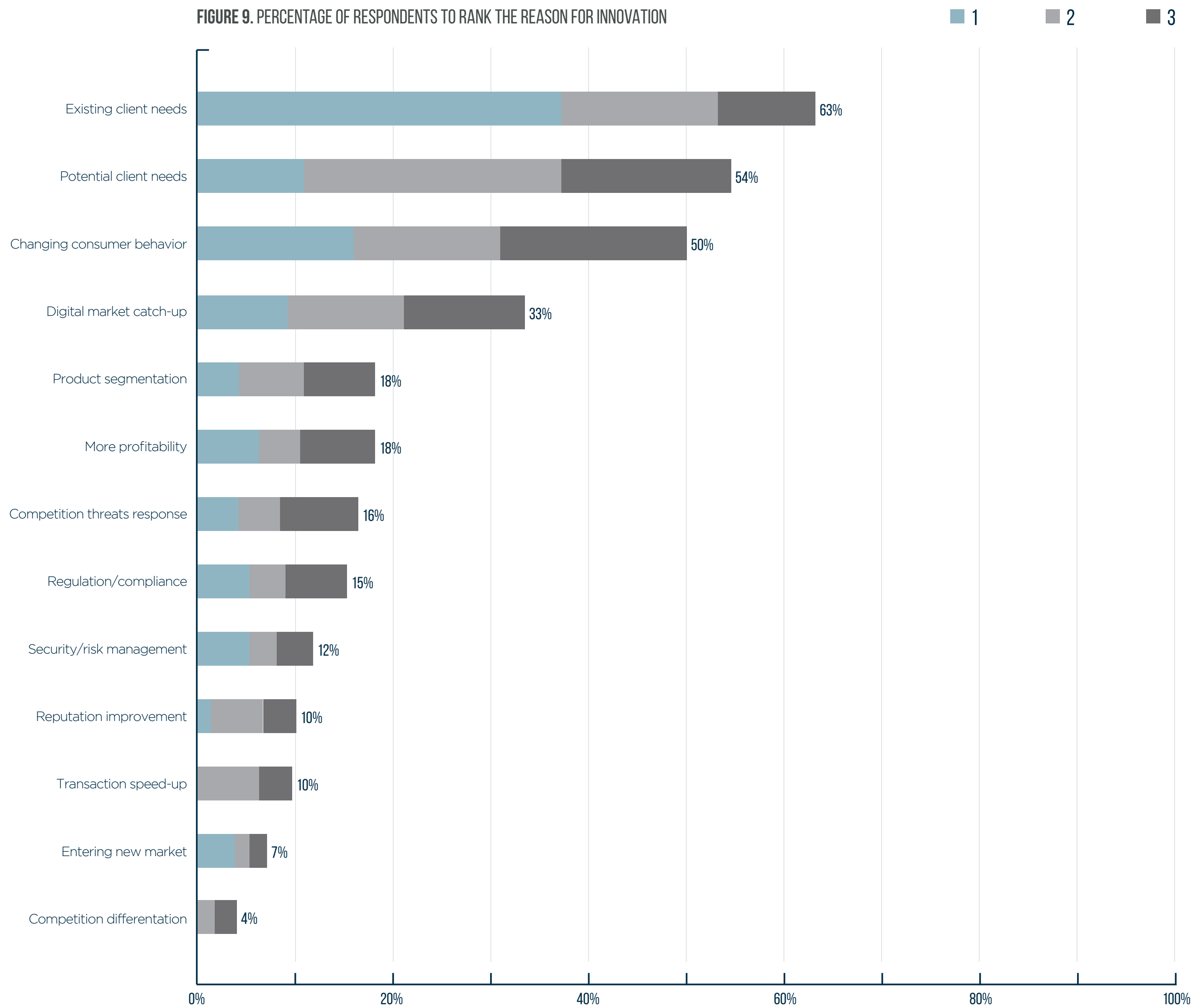
ON WHICH

PAYMENTS INNOVATIONS ARE FIS FOCUSED?

The short answer: digital wallets in the short-term and payments technology for the future.

Unsurprisingly, facilitating existing client needs is the biggest driver behind innovation, with 63 percent of FIs citing it as the top reason and 37 percent scoring it as a 1 in terms of importance. The runner up was meeting a potential client need. As shown in Figure 9, 54 percent identified potential need as a reason for innovation, with 11 percent scoring it as a 1 in terms of importance.

FIGURE 9. PERCENTAGE OF RESPONDENTS TO RANK THE REASON FOR INNOVATION



Digital wallets have been the most intense areas of focus in recent innovation. In the last three years, as shown in Figure 8, more than half of FIs (56.1 percent) said digital wallets were a focus of innovation. In fact, digital wallets were the most frequently mentioned innovation for 31.3 percent of FIs. One-third of them said they were innovating to play catch up on digital wallets and mobile banking.

Nevertheless, FIs have actually focused on a diverse range on new innovations. Figure 10 shows they have also focused on peer-to-peer (P2P) payments, fraud management, loyalty/rewards and retail payments in the last three years. Figure 11 shows a similar focus diversity in the most recent innovation period.

FIGURE 10. FOCUS OF INNOVATION FEATURES IN LAST THREE YEARS

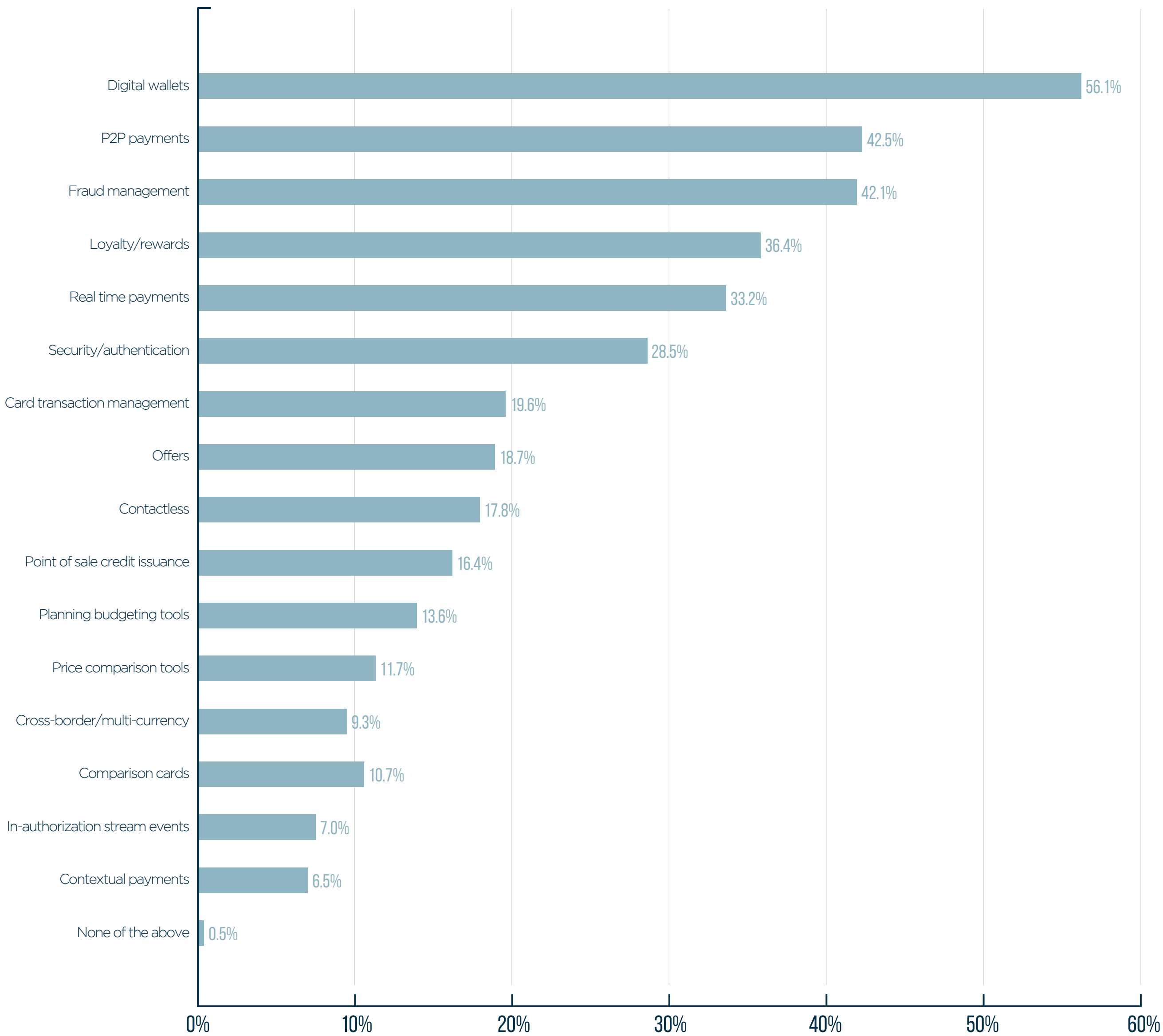
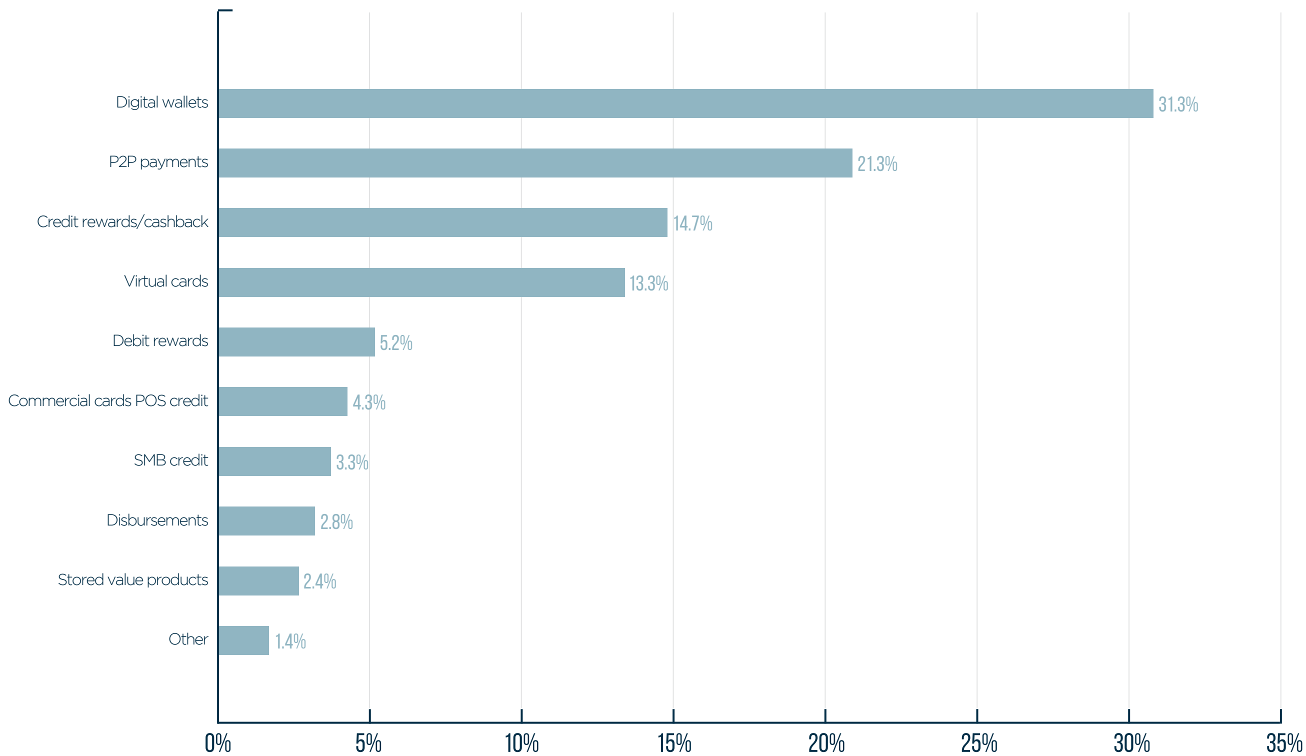
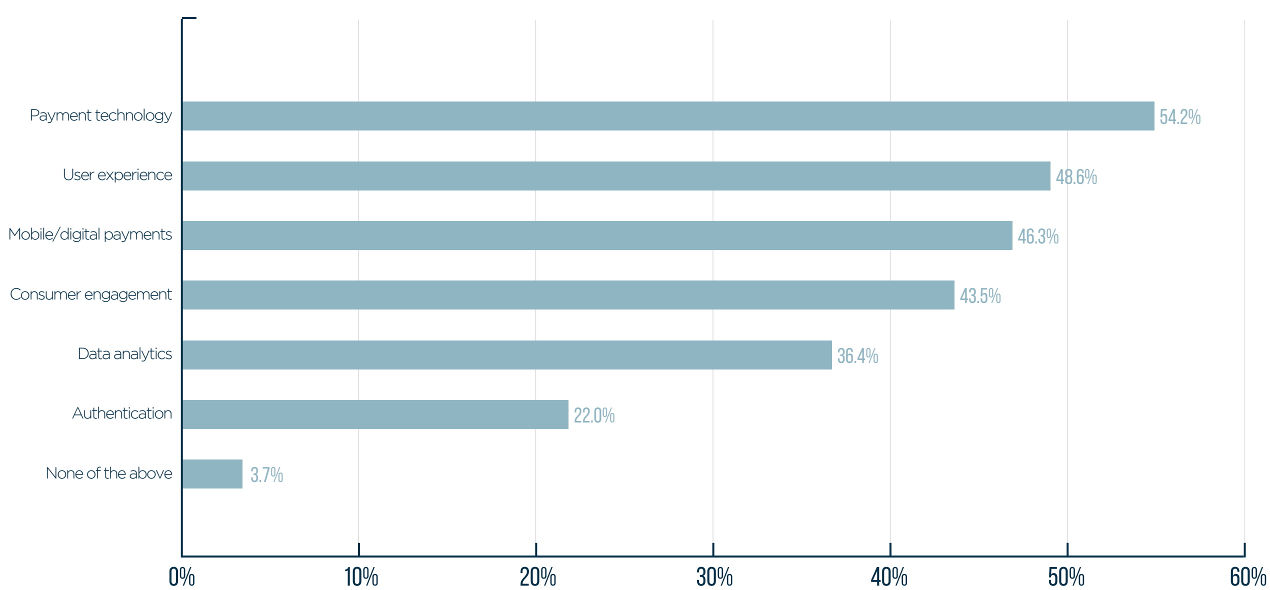


FIGURE 11. MOST RECENT PAYMENT INNOVATION



Going forward, though, FIs are moving on. More than half (54.2 percent), as shown in Figure 12, are focused on investing innovation in payments technology like contactless, in-authorization events and mobile remote deposit capture, followed by innovations in user experience. Digital payments — which includes mobile wallet, P2P transaction and other mobile payment methods — is still a focus, but comes in third in terms of ranked importance.

FIGURE 12. INVESTMENT IN PAYMENTS INNOVATION IN NEXT THREE YEARS



WHAT STIMULATES

AND WHAT IMPEDES SUCCESSFUL INNOVATION?

The answer is simple. Supportive institutions stimulate innovation but IT challenges make innovation much more difficult.

Respondents believe they've been pretty successful at innovation, however, stating more than 80 percent of recent payment innovations have been very or extremely successful. In fact, more than 80 percent of respondents completed innovation on time or early. Many of the FIs tested innovations on employees (48.1 percent) or on customers (46.3 percent) during the path to introducing new innovations.

There is, nonetheless, a view among a significant minority of respondents that the environment for innovation could be better and that there are significant obstacles to payments innovation. While one might say this is focusing on the glass being half empty, **39.8 percent of respondents indicated core payments processing systems hindered innovation.** But, the fact that nearly two-fifths of FIs see their institution as an obstacle is noteworthy — and this is roughly true across diverse asset sizes and number of branches.

The standout obstacle to innovation resides in IT systems, according to our findings. **More than one-third (36.3 percent) of respondents stated their IT infrastructure made innovation hard or very hard.** Table 1 shows how respondents rated various factors in terms on making it easier or more difficult to innovate.

TABLE 1. FACTORS THAT HELP OR HINDER PAYMENT INNOVATION PROCESS

LOW HIGH

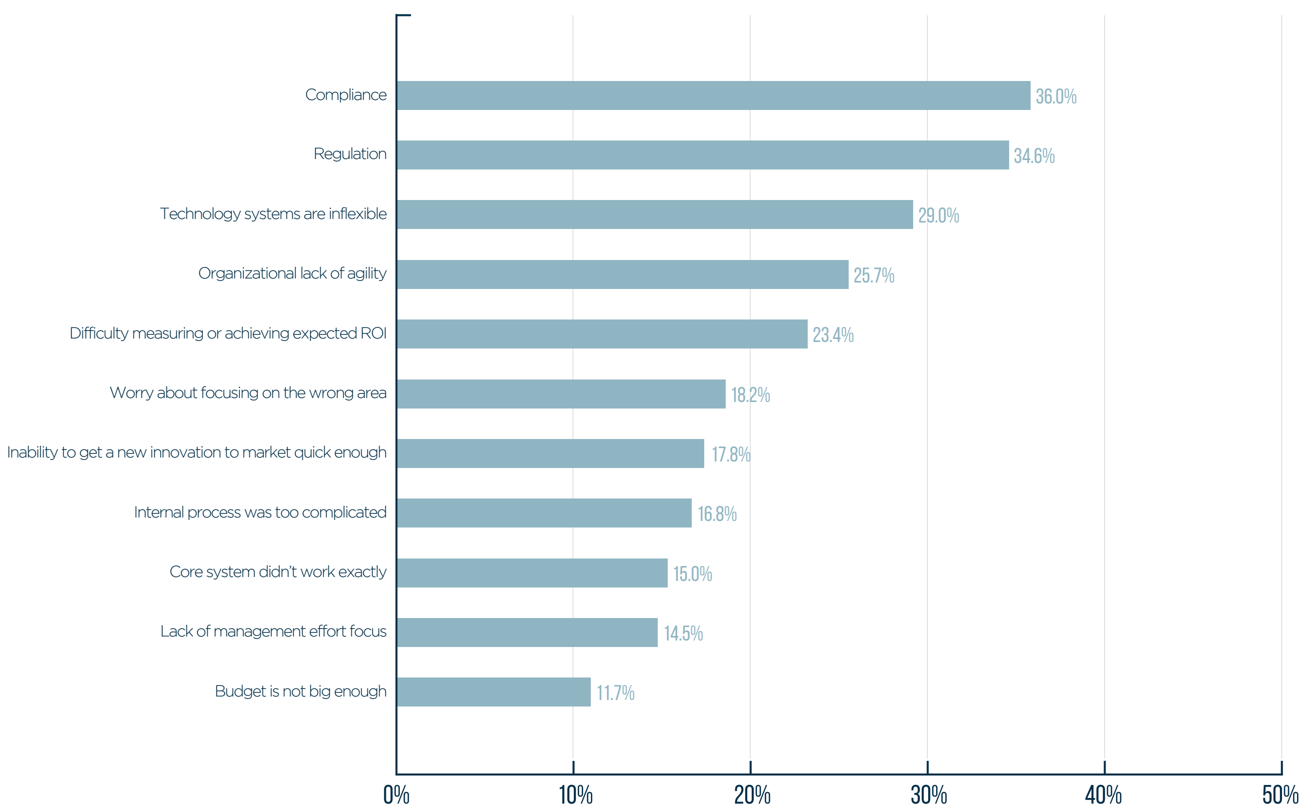
FACTORS	1 EASY	2	3	4	5 HARD
ABILITY TO INVEST	14.9%	30.4%	33.5%	15.5%	5.7%
CARD MANAGEMENT AND PAYMENTS PROCESSING SYSTEMS	15.4%	29.7%	31.3%	16.4%	7.2%
SERVICE AND SUPPORT	18.7%	35.8%	21.8%	16.6%	7.3%
PERSONNEL, NOT INCLUDING MANAGEMENT	17.4%	26.7%	29.7%	19.0%	7.2%
MANAGEMENT	18.2%	30.2%	24.0%	19.8%	7.8%
CULTURE	18.1%	26.4%	28.0%	19.7%	7.8%
PROCESS USED TO IMPLEMENT NEW PRODUCTS	14.9%	24.2%	30.9%	22.7%	7.2%
BUDGET	13.2%	24.7%	33.2%	17.9%	11.1%
ORGANIZATIONAL STRUCTURE	16.4%	26.2%	25.1%	27.7%	4.6%
IT INFRASTRUCTURE	14.0%	24.9%	24.9%	24.9%	11.4%

> "29 percent of respondents identified inflexible IT systems as an impediment to bringing an innovation to market."

Not surprisingly, when it comes to bringing innovation to the market, regulation and compliance issues rank high as obstacles. To a larger degree, those are outside of FIs' control, but many respondents pointed to institution-specific problems as responsible for hindering innovation, as shown in Figure 13.

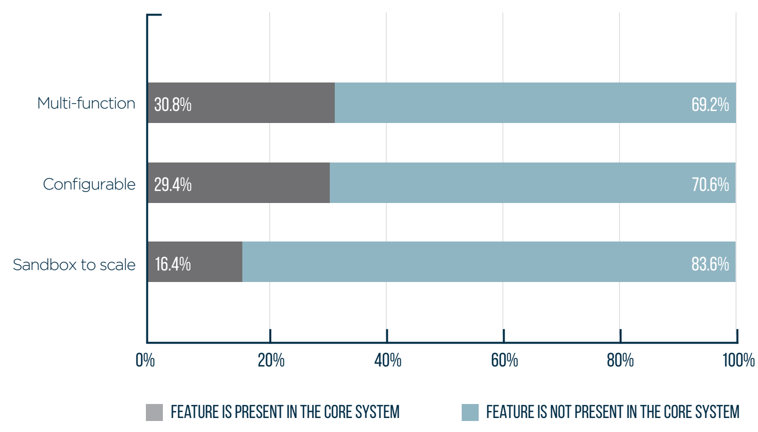
The top problem within an organization's control, however, is having inflexible IT technology systems. Approximately **29 percent of respondents identified inflexible IT systems as an impediment to bringing an innovation to market.**

FIGURE 13. IMPEDIMENTS FACED WHILE ROLLING OUT INNOVATION TO MARKET



The core processing systems used by these FIs — a significant part of relevant IT systems — lack key features that would make innovation easier. As shown in Figure 14, almost all FIs ran core processing systems without a sandbox for development innovation (83.6 percent reported a lack), most are not readily configurable (70.6 percent) and most are not multifunction (69.2 percent). It is worth nothing that four out of 10 (39.7 percent) of the top innovating FIs, as ranked by our Index, use sandbox to scale functionality.

FIGURE 14. FEATURES THAT SUPPORT PAYMENT INNOVATION



WHAT MAKES

INNOVATION SUCCESSFUL?

Short answer: Having flexible information technology systems is a big help.

A striking finding from the survey is the importance of IT infrastructure to success. FIs with flexible IT infrastructure are twice as likely to be successful at innovating. Recent innovations had a 70.4 percent success rate at FIs that said their IT infrastructures made it very easy for them to innovate, compared to a 36.4 percent success rate at FIs reporting their IT infrastructures made it very difficult.

We used regression analysis to predict the likelihood that a recent innovation would be successful based on a multitude of factors described in the survey. We found the 14 factors listed in Table 2 had a substantive impact on the likelihood of success and were, therefore, statistically significant. These factors include the ability of banks to rollout innovations either early or on-time, among others.

TABLE 2. FACTORS THAT HAD A SUBSTANTIVE AND STATISTICALLY SIGNIFICANT IMPACT ON THE LIKELIHOOD OF INNOVATION SUCCESS

GENERAL TOPIC	GENERAL BANK FEATURE	IMPACT ON INDEX
• ROLL-OUT FOR RECENT INNOVATION	Completed early Completed on time	Completing innovations early or on-time improves chance of success
• REASON FOR THE INNOVATION SUCCESS RATING	Customer Adoption Currently Works as Intended Easiness	Customer adoption, working as intended and ease of implementation improves change of success
• INNOVATION TO MARKET - IMPEDIMENTS	Difficulty measuring or achieving expected ROI	Difficulty measuring / achieving ROI decreases chance of success
• INNOVATION DIFFICULTY	IT Infrastructure	Infrastructure that makes innovation easier increases likelihood of success
• CORE PAYMENTS PROCESSING SYSTEM INNOVATIONS SUPPORT	Configurable Real time	Configurable and real time core payment systems increase likelihood of success
• IMPORTANT METHODS THAT ARE USED AS PART OF THE PAYMENTS INNOVATION PROCESS	Test Innovations with Customers Own Tools and Products Customers Suggest Innovations	Using customer suggestions and methods increase the likelihood of success
• PERCENTAGE OF ANNUAL PAYMENT BUDGET THAT IS ALLOCATED TO INNOVATION	1-10%; 11-25%; 26-50%; 51-75%; 76-90%; 91-100%	A Larger allocation of budget for innovation increases the likelihood of success

We used this statistical model to develop an Index to rank each FI based on the likelihood its innovations would be successful, given the characteristics of the institution. The Index ranges from 0 to 100, with a higher score indicating a higher likelihood of success.

FIGURE 15. PERCENTAGE OF BANK INNOVATION READINESS INDEX SCORE RESPONDENTS BY INDEX RANGES

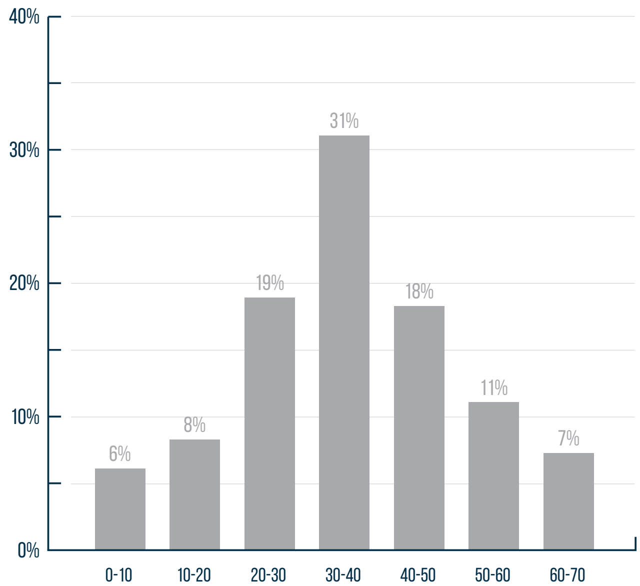


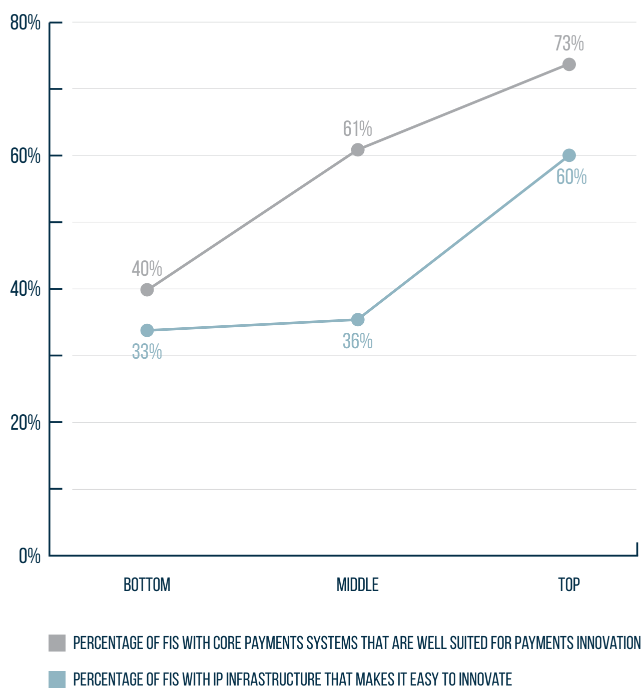
Figure 15 shows the distribution of the scores across our 214 respondents. The average score across all FIs was 37.8 and median was 37.1. As shown in this figure, the Index scores form a relatively normal distribution with 31 percent of all FIs receiving a score between 30 and 40. In addition, we did not see spikes at the end of the distribution. This, combined with the fact that the average and median are so close, indicates there is very little skew in the Index scoring.

To provide further insights, we compared the top performing innovators with those on the bottom. We defined the "bottom" as the 15 institutions with the lowest scores and the "top" as the 15 with the highest scores. The best had an average Index score of 66, while the worst had an average Index score of 16.

A careful analysis reveals many factors distinguishing the top and bottom performers. The top performs are far more likely to be at the leading edge of the innovation process, and are also more likely to receive funding for payment innovation, complete innovations more quickly and complete innovations on time. Most importantly, the best performers have IT systems making innovations much easier, and this leads directly to a better chance of innovation success.

As shown in Figure 16, more than 70 percent of the best innovators have core payments processing systems well suited for innovations and 60 percent of the top performers have IT infrastructure making innovation easy. Both metrics exceed the worst performers.

FIGURE 16. COMPARISON OF BEST AND WORST PERFORMERS BASED ON LIKELIHOOD OF SUCCESS[4]



[4] We asked FIs to tell us how their core payments processing systems impacted the innovation process. Specifically, respondents selected either, "The core payments processing systems are well suited for payments innovation and they are easy to adapt for new products and services for customers," or "The core payments processing systems hinder our ability to innovate and adapt new products and services for customers." This chart shows the percentage of respondents that indicated core systems were well suited for payment innovations.

More than 90 percent of the top performers roll out new products before other players in the market. Fewer than 7 percent of the worst performers roll out products before others, as shown in Figure 17.

In terms of total funding, the top performers — which are much more likely to focus on payments — receive more funding than other business units. In fact, nearly 90 percent of the best performing FIs receive more funding for payments than other business units. Only one-third of the worse performing FIs provided more funding for payments than for other business units.

The best performers also complete the innovation cycle much more quickly and are much more likely to complete innovations on time. As shown in Figure 20, 80 percent of the top performers complete innovations in six months or less, and nearly 75 percent complete innovations on time.

FIGURE 17. COMPARISON OF BEST AND WORST PERFORMERS BASED ON TIMING OF NEW PRODUCT INNOVATION

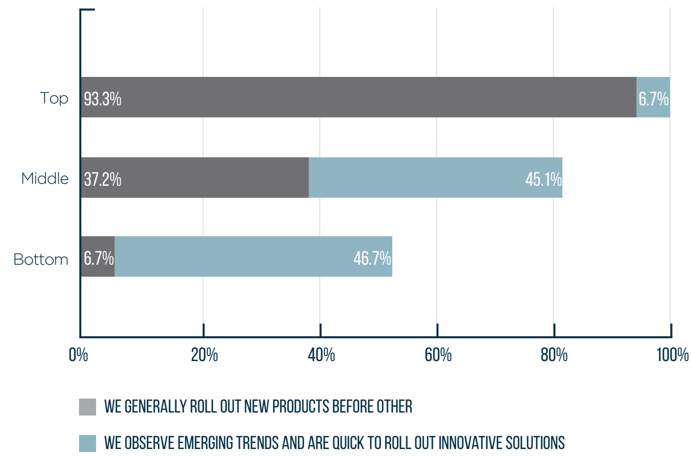


FIGURE 18. COMPARISON OF BEST AND WORST PERFORMERS BASED ON FUNDING

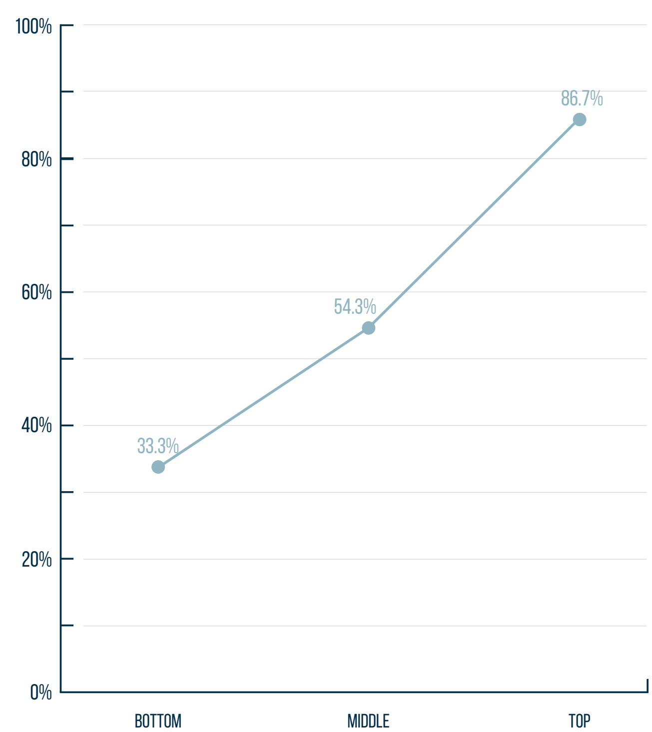
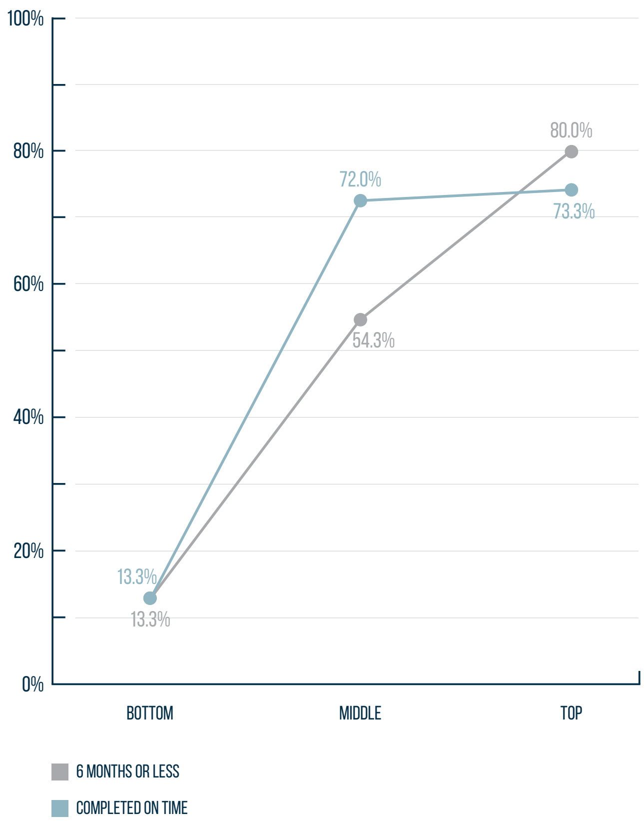


FIGURE 19. COMPARISON TO BEST AND WORST PERFORMERS BASED ON INNOVATION SPEED AND TIMELINESS



By contrast, just 13 percent of the worst performers complete innovations in six months or fewer, and the same 13 percent complete these innovations on time.

Overall, a flexible core payments processing system, a solid IT infrastructure and good funding are the three main elements enabling the top FIs to outperform their competition.

CONCLUSION

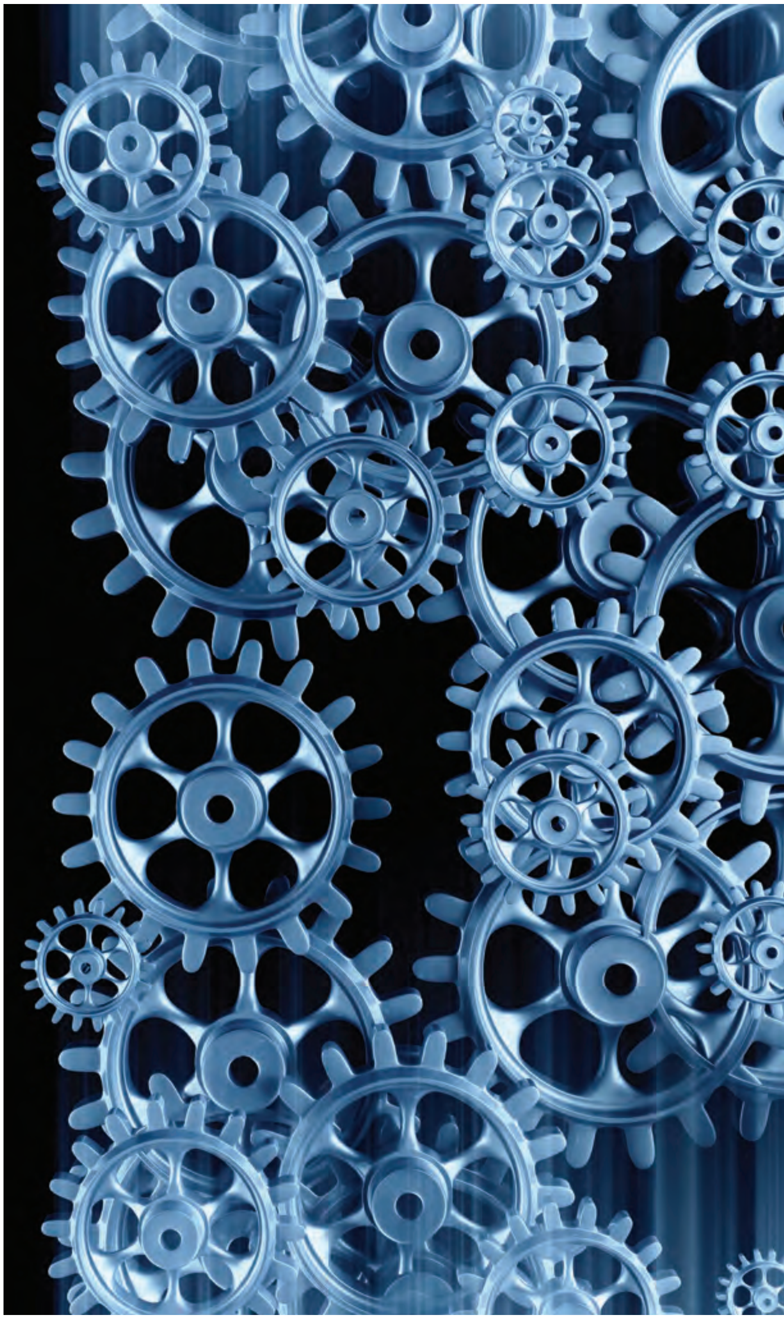
There's a constant need tor FIs to rapidly innovate to keep up in the highly competitive marketplace of consumer payments and banking. However, more than one-third of FIs today struggle to innovate when it comes to offering payment solutions that are necessary for staying competitive and providing customers what they need.

For FIs, staying competitive means keeping a pulse on evolving consumer needs and quickly deploying innovative payment solutions — instead of playing catchup with the leading players. Thirty-seven percent of FIs rate fulfilling existing customer needs as the number one motivational factor for rolling out innovative products.

And, to execute a faster development-to-deployment cycle, FIs need a top-of-the-line IT infrastructure and a flexible core payments processing system offering sandbox-to-scale functionality. Considering how a robust infrastructure can help FIs innovate faster, it's no wonder 70 percent of FIs with a flexible IT infrastructure rate their recent innovation as extremely successful, more than twice as high as the average.

LETTING BANKS PLAY IN THE INNOVATION SANDBOX

That information technology (IT)-related challenges can be an obstacle for innovation comes as no surprise to Edward Gross, director of payments and operations for the American Bankers Association (ABA), a trade organization representing all the financial institutions (FIs) operating in the U.S.



Ahead of the PYMNTS Bank Innovation Readiness Index's publication, Gross and PYMNTS' Karen Webster reviewed the results of the report and discussed their impressions. Neither was astonished that IT-related challenges often present the largest complication for banks — particularly the smaller ones — looking to move forward with their innovation agenda. But, the big "aha" finding was which types of institutions FIs view as competitors.

Opportunity for reflection?

In fact, where FIs see their greatest source of competition depends heavily on the type of FI being asked. Spoiler alert: Size matters.

Initial Index findings indicate that larger and smaller FIs have varying attitudes about their competition. The research noted 50 percent of larger, national FIs consider their large bank peers and FinTech players as their top competitors.

But, it's a different story for smaller banks. Smaller banks tend to view the bank across the street, in addition to the national and regional banks, as FIs on which to keep their eyes. Interestingly, the Index found 20 percent of banks ranked outside the top 25 regard PayPal as a significant competitor, making it the fourth largest competitive source for smaller banks.

Gross found it interesting that so many of those smaller banks consider PayPal a direct competitor, particularly given PayPal's focus on partnering with banks.

"The issue of who the competition is will probably create most soul-searching among the banker [community]," Gross said. He believes many banks will respond with a sense of affirmation to the Index's findings — and realize other FIs share similar views.

> "Smaller banks spend a lot more time speaking with each other than other big banks do, and probably have a sense that they're in a similar boat."

Helping banks realize that other, similar FIs share the same views and attitudes toward digital financial services and FinTechs could help deepen the sense of, well, "community" among the broader network of those that are not part of the "Top 25" club.

"Smaller banks spend a lot more time speaking with each other than other big banks do, and probably have a sense that they're in a similar boat," Gross said.

Challenges with IT infrastructure

The Index also noted FIs have made significant investments in innovation over the past three years. Digital wallets, peer-to-peer (P2P) payments and fraud management solutions are among the features on which banks focused the bulk of their investment efforts during this time.

When asked about the Index's findings that IT-related struggles are an obstacle to introducing innovation, Gross was not shocked.

"It's a universal truth in corporate America that [challenges with] IT resources always hold a company back," he said.

As explained in the Index, 70.6 percent of features that would make innovation easier are not configurable with an FI's core system, and 83.6 percent of FIs reported launching innovations without first using a sandbox testing environment. While not shocked by either fact, Gross noted he was concerned about the lack of such testing environments for banks.

"There's no place to play, there's no place to test," he said.

According to Gross, making sandbox environments more accessible could go a long way toward addressing the IT-related challenges FIs face and put more FIs on an efficient path toward enabling their latest innovations.

Gross encouraged business owners to respond to IT team members' push to get access to a sandbox for testing.

"I always listen to the people in the space between developers and business owners because they speak a particular language — the language of how IT and goals and strategies can push new product ideas forward," he explained.

It's an area about which Gross feels so strongly that he indicated he would press both FIs and core processors to expand the usage of sandboxes, thus giving banks the ability to build, test and more efficiently get innovation to market.

METHODOLOGY

To gauge the degree to which mid-to-low tier financial institutions (FIs) can complete payments innovations, we surveyed executives from FIs in the U.S., excluding the top 25 measured by asset size.

Each of the respondents held significant influence on the payment or retail and online/digital banking operations of the institution at which he or she worked.

Respondents filled out a detailed survey consisting of 34 questions concerning payments innovation at their institutions. The survey was conducted during September 2017, and this report is based on those responses.

The respondents included in our survey worked in the following areas:

- Card Payments for Consumers or Businesses
- Retail and Online/Digital Banking

We excluded respondents from the following areas:

- Accounting and Administrative
- Compliance
- Customer Service
- IT/Data Processing
- Legal
- Marketing
- Operations
- Product Management
- Wholesale, Corporate Banking and Treasury Management

After screening out the respondents who did not match our criteria, we obtained 214 responses, 194 of which were complete. The 20 incomplete responses were nonetheless included in the analysis as the answers still provided useful information.

Our sample was divided roughly evenly between commercial banks, community banks and credit unions.

FIGURE 20. DISTRIBUTION OF RESPONDENTS BY INSTITUTION TYPE

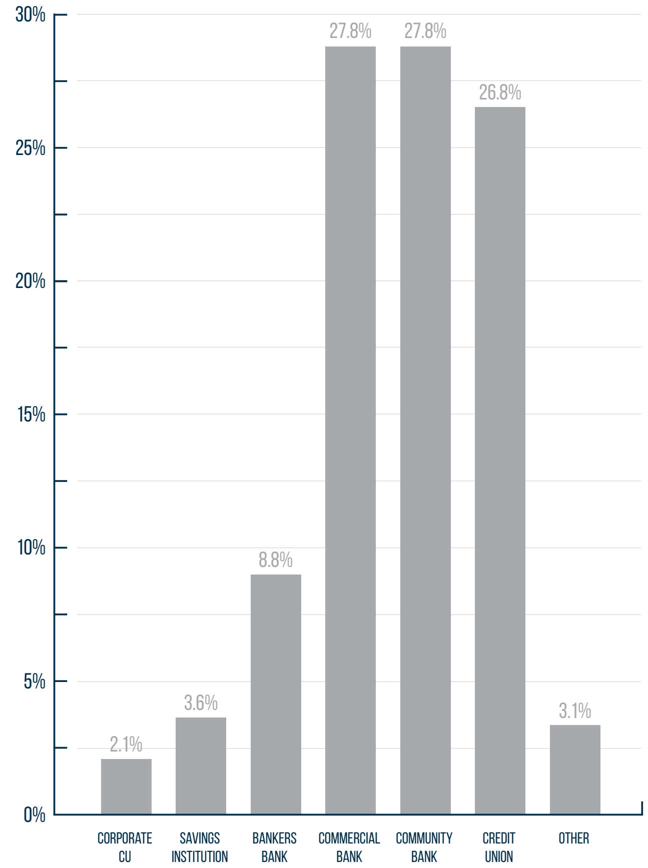


FIGURE 21. DISTRIBUTION OF RESPONDENTS BY NUMBER OF BRANCHES

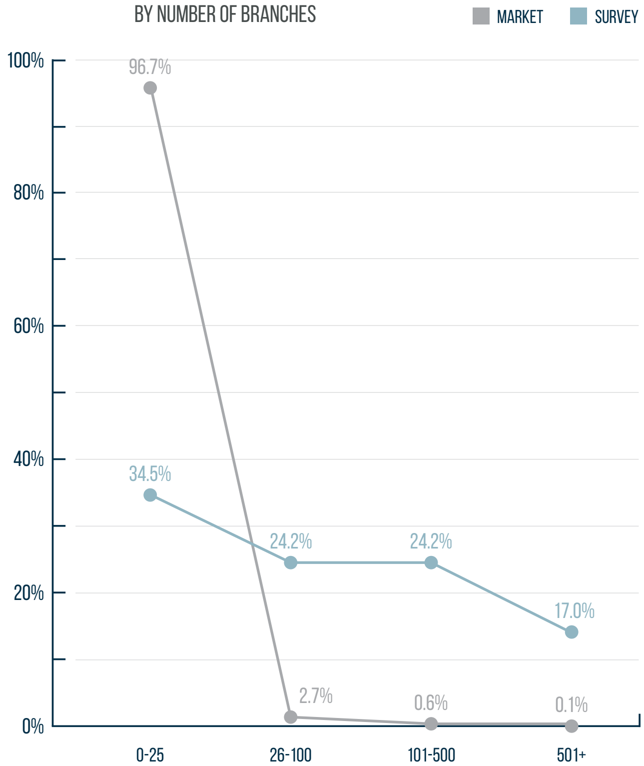
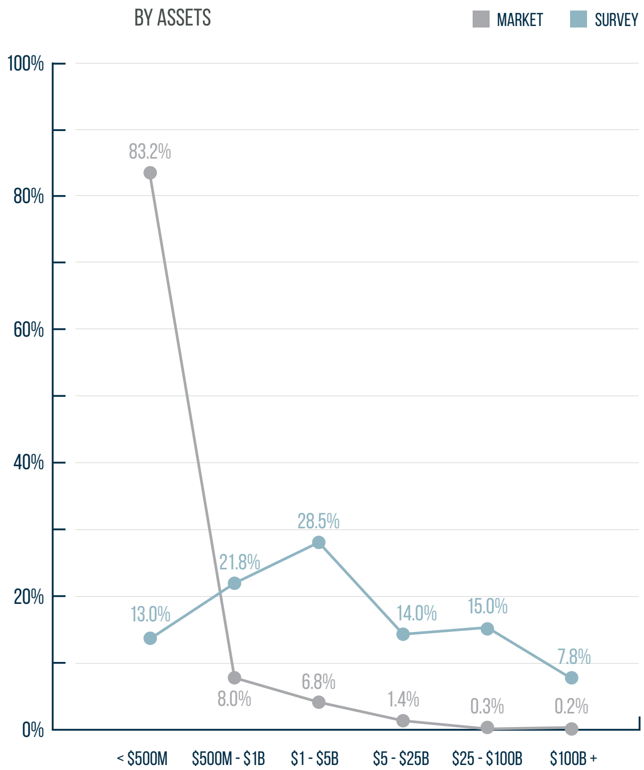


FIGURE 22. DISTRIBUTION OF RESPONDENTS BY ASSETS



Most of the FIs in the market and in our survey sample have 25 or fewer branches. However, in comparison to the market, our sample had a more even distribution. Seventeen percent of our sample was comprised of companies with 501 or more branches, whereas just 0.1 percent of FIs in the market have that number of branches.

When it comes to asset size, while 83.2 percent of FIs in the market have fewer than $500 million in assets, only 13.2 percent in our sample do. In our sample, the majority of FIs held $1 billion to $25 billion in asset size.

The PYMNTS Bank Innovation Readiness Index measures the likelihood of FIs implementing successful payments innovation. As part of the survey, we asked banks to tell us how successful their most recent innovations were. We then ran a regression of various features and attributes of the FI to determine which had a statistically significant impact on the likelihood of an innovation being successful.

Our dependent variable was the success of the current innovation. The potential answers to this question ranged from "not at all successful" to "extremely successful" in a five-point rating system. We assigned these values a score from 25 ("Slightly Successful") to 100 ("Extremely Successful"). Since no one responded, "Not Successful At All," the possible values of the dependent variable were 25, 50, 75 and 100.

We ran an ordered probit model to classify an ordinal dependent variable estimating the probability of it having a specific value. Our statistical analysis showed there were 13 significant variables, listed here in Table 3.

TABLE 3. STATISTICALLY SIGNIFICANT INDEPENDENT VARIABLES

QUESTION	POTENTIAL ANSWER
• ROLL-OUT FOR RECENT INNOVATION	Completed early Completed on time
• REASON FOR THE INNOVATION SUCCESS RATING	Customer Adoption Currently Works as Intended Easiness
• INNOVATION TO MARKET - IMPEDIMENTS	Difficulty measuring or achieving expected ROI
• INNOVATION DIFFICULTY	IT Infrastructure
• CORE PAYMENTS PROCESSING SYSTEM INNOVATIONS SUPPORT	Configurable Real time
• IMPORTANT METHODS THAT ARE USED AS PART OF THE PAYMENTS INNOVATION PROCESS	Test Innovations with Customers Own Tools and Products Customers Suggest Innovations
• PERCENTAGE OF ANNUAL PAYMENT BUDGET THAT IS ALLOCATED TO INNOVATION	1 to 10 percent, 11 to 25 percent, 26 to 50 percent, 51 to 75 percent, 76 to 90 percent, 91 to 100 percent

The formulation resulted in a score from 0 to 100 where 0 indicates the bank has no chance at a successful innovation and 100 indicates the bank will have a successful innovation.

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