TRANSFORM

Brett King
Futurist, author, and banking expert

Dame Jayne-Anne Gadhia
Founder and CEO, Snoop / Former CEO, Virgin Money

SAY HELLO TO SELF-DRIVING MONEY

BEST RATES, BEST PRODUCTS – YOUR BEST BANKING FUTURE AWAITS

AUGUST
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#DigitalFinance

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IN THIS ISSUE,
WE LOOK AT DIGITAL FINANCE

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Editor's note:

WHY THE DIGITALIZATION OF BANKING IS NO JOKE

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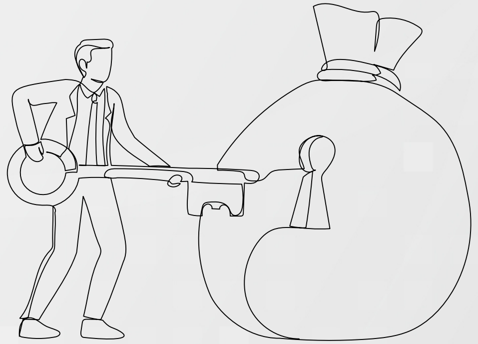


"Old bankers never die; they just lose interest."

The groan-inducing joke is familiar, comfortable, and safe—much like the industry itself. Or at least like the industry has been in the past. Now, a new breed of bankers, armed with apps, AI, and datasets, has bypassed the dusty branch networks. Their new stock in trade is digital networks, personalized services, and direct instant access to customers.

This is banking on your phone. It's available how and when you want it, not just during "banker's hours." In this edition of *Transform*, we explore how established legacy financial institutions are fighting back and competing with challenger banks, mobile wallet players, and digital disruptors. Do we all need to be technologists now? Will innovation add another layer of personalized services to our financial lives?

Futurist, podcaster, and best-selling author Brett King subtitled his popular book Bank 4.0 "Banking Everywhere, Never in a Bank."

He tells me the industry is being stripped back to the basics, demanding top-down culture shifts.

"We suddenly have the technology, with AI, to provide a bank account that can actually help you manage your money—a smart bank account, if you like," he says. "This is the most positive development in banking in a couple of hundred years."

Yes, the digitalization of banking is about things that will be of interest mainly to bankers—automating loan processing, for example.

But whizzy tech plays a role as well. Take smart glasses, for instance.

"With smart glasses, you won't have a mobile banking app. You'll have chunks of functionality or moments of experience where the glasses will look at the context of the situation, interpret your need, and use the financial services layer to provide you with a solution," he says.

Dame Jayne-Anne Gadhia is the founder of the Snoop money management app and former CEO of Virgin Money, a financial services brand that is part of the Virgin Group.

Like Brett King, she is enthusiastic about the potential benefits of AI for banking. But she says it's important not to neglect more traditional skills.

"You can't just use a banking app," she says. "You need to be able to understand the inputs and outputs. That easy access and easier response means we all need to be more numerate."

Dame Jayne-Anne denies that banks have been slow to embrace full digitalization. Instead, she says, they've been rightly cautious, recognizing the need for cast-iron cybersecurity.

"It's not as simple as waving a magic wand. It's complex, expensive, and risky. It's a big project that people will have to plan for over many years."

David Brear, CEO of the financial services consultancy 11: FS, sees the modernization of banking as a Darwinian battle. "It's not the strongest of the species that survive, but the ones most adaptable to change," he tells me.

"What we'll start to see is the march towards self-driving money [where your bank moves your money around to make sure you always get the best products and the best rates]. Financial services needs to move to a place where it's fundamentally there to make people better off."

Among other interviews in this edition of *Transform*:

• The former CIO of China Merchants Bank and now Huawei's Financial Services Chief Digital Transformation Officer, K.T. Chen, tells me how Huawei's experience and technical support is "priceless" in helping banks anticipate and meet their customers' changing needs.

• Paul Siy, CTO and head of infrastructure and operations at BDO Unibank, explains why COVID forced the bank to radically beef up its digital capabilities.

• Justin Chen, director of IT and operations at Indonesia's Bank Neo Commerce, compares digitalization to changing a car's engine and wheels mid-race without stopping.

All agree that the banking industry is experiencing a generational upheaval.

And in some ways, that's a good thing. In the developing world, for example, the digital transformation of financial services means the development of new apps, such as bKash in Bangladesh and "fetswallet" in Nigeria. These apps allow unbanked populations to deposit and transfer money, receive social benefits and welfare payments, and even pay their bills electronically—something previously unthinkable in cash-based economies.

And, like the welter of weak online jokes—"If money doesn't grow on trees, then why do banks have branches?"—the transformation of banking is no laughing matter. Financial services remain a consistently vital and lucrative business.

The tired old gags will have to be updated to match the digital age. But the provider who can do the same with the public's changing digital demands will be laughing all the way to the bank...

NO BRANCHES, NO TELLERS: BANKING'S FUTURE GOLDEN AGE

A consultant to the banking industry and a keynote speaker at Huawei's 2023 Intelligent Finance Summit, Brett King speaks with *Transform*'s Executive Editor-in-Chief, Gavin Allen, about the future of banking.

Gavin Allen: Is this a golden age for the banking customer?

Brett King: Smartphones have brought 1.4 billion people into the financial economy for the first time, just in the last decade or so, which is phenomenal progress considering that previously, half the population was still excluded.

There are still about 1 billion people or so that need to be included in the financial system today, and we need to address that.

But in terms of a golden age, we suddenly have AI and so forth. We can provide a bank account that can actually help you manage your money—a smart bank account.

The early wallet systems we see today, like Alipay and WeChat Pay in China, Paytia in India, and Kakao in South Korea, will evolve into AI-based bank accounts that help us with our day-to-day money management. I think this is probably the most positive development in banking we've seen in the last couple of hundred years.

Brett King
Futurist, author, and banking expert

> **Advice from AI will be highly targeted, highly contextual, and much more personalized than we could ever get from a human.**

Scan QR code to watch the full interview

Gavin Allen: Just expand on that. For example, in AI, what will be the impact? Everyone is talking about AI for a variety of reasons. What will it do for customers and banks?

Brett King: Right now, we're in a phase where we're using technology to reduce friction, making the accessibility of financial services easier. So that sort of started in the Internet era: faster, more ubiquitous delivery of financial services.

But what we're doing right now with ChatGPT and technologies like that is sort of creating this advice layer. So you've got banks like WeBank in Shenzhen, where 98% of customer service inquiries are handled by artificial intelligence.

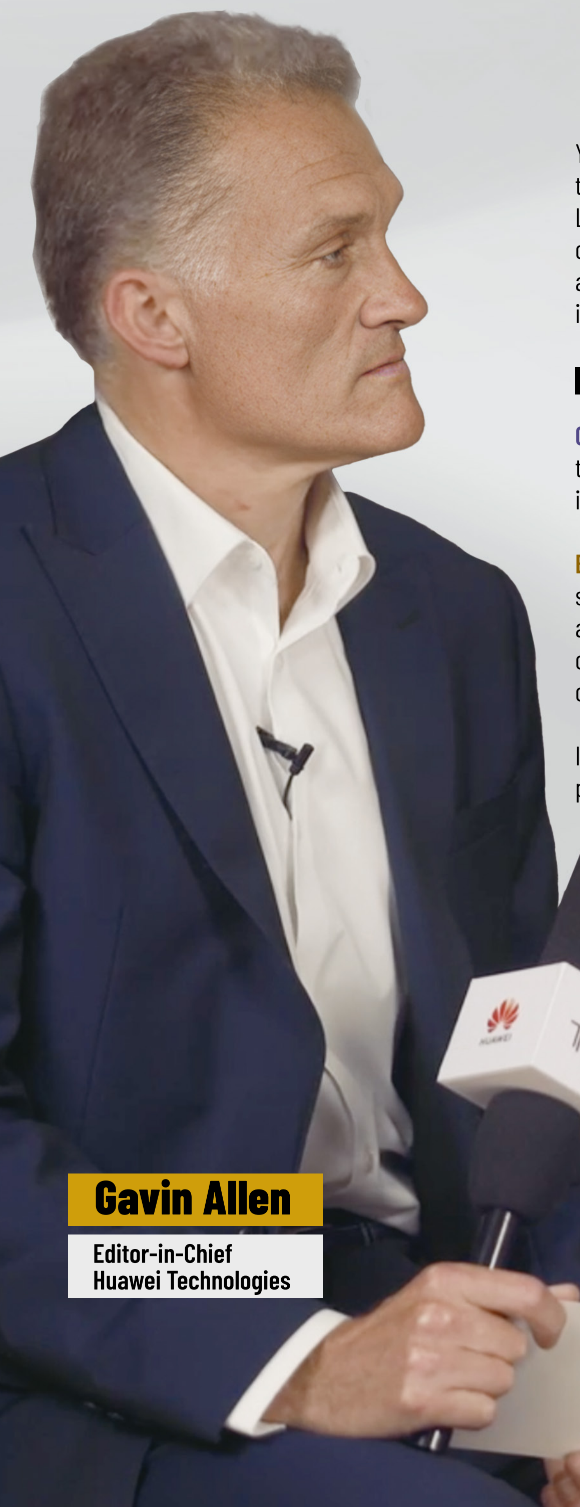
How can AI help you today?

Now, this is going to be a trend we're going to see with banks around the world: using AI to give advice, augmenting human advice with AI. So, when you look at your portfolio as an investment situation, the financial advisor will say his advice is powered by AI.

You go to the doctor, and they'll say the same. We will get into this period where we rely more and more heavily on artificial intelligence to give us the best advice.

Gavin Allen: And personalized advice.

Brett King: That's the thing. AI will be trained on our personal behavior, tailored to our personal situation. So, when we get advice from our personal AI and a bank's AI, negotiating, if you like, it will be highly targeted, highly contextual, and much more personalized than we could ever get from a human.



Gavin Allen

Editor-in-Chief
Huawei Technologies

You have to be quite confident as a CEO to say, "We know this future is coming. Let's get ahead of it." And so, it really comes down to embracing this future and acquiring the ability to adapt, both individually and as a corporation.

Rose-colored smart glasses

Gavin Allen: In your keynote speech, you talked about smart glasses. How will they impact banking?

Brett King: This is the next major personal electronics or consumer device, and the next major re-vamp in personal computing technology: wearable, spatial computing.

If you look at the development of computing since the 1960s, we've been getting more powerful computers. But we've also been making them easier to use.

Now we have AI that can understand when we talk, AI with sensors that can observe our behavior, our eye movements, hand gestures. You don't need a keyboard, a mouse, or even a screen anymore. You can just use the glasses.

You're not going to have programs or apps like we have today. You won't have a mobile banking app that pops up on your screen. You'll have these chunks of functionality or moments of experiences where the smart glasses look at the context of the situation, interpret your need, and use the financial services layer to provide you with a solution, whether that's access to credit, helping you understand the impact of a spending decision, or whatever it may be.

> "If you're still thinking about issuing a plastic card to make payments, you are really lost. This is a completely new paradigm."

In-the-moment solutions

These are highly personalized, in-the-moment, contextual solutions based on a whole set of technologies that we've been developing. So, if you're still thinking about issuing a plastic card to make payments, you are really lost. This is a completely new paradigm.

Banks in this era are going to be so different from the banks of the 1990s and 2000s. We won't recognize them. You won't have any product departments. You won't have a credit card department, a savings department, or a mortgage department because all those things will essentially have become embedded experiences in this smart world.

Gavin Allen: Will you have anyone except technologists, then? What's the point of having banking advisers?

Brett King: Look at Alipay as an example. Ant Group [an Alibaba affiliate that owns AliPay, a large mobile payment platform in China] are restructuring at the moment, but 90% of their executives are technologists. I think that's sort of a template for the way banks have to be. I think you will still need some legacy knowledge, just because if you're translating the old systems and processes into the new way, you need to figure out where the old technology sits and so forth.

> "By 2050, most of banking will run like an AI-based corporation. The need for branches, for signatures—all of that will have disappeared."

But ultimately, by the time we get to 2050, most of banking will run like a DAO, a Decentralized Autonomous Organization, or an AI-based corporation, and you may set policy and so forth in line with regulators in the code base.

There may be a human layer to that. But the need for branches, the need for signatures—all of that has obviously long disappeared.

Brett King

Futurist, author, and banking expert

MAGIC WAND OR MAGIC WALLET?

WHAT TRADITIONAL BANKS MUST DO TO *EMBRACE DIGITALIZATION*

Dame Jayne-Anne Gadhia

Founder of Snoop and former CEO of Virgin Money

Gavin Allen: What does it currently mean for legacy or established banks to "digitalize"?

Jayne-Anne Gadhia: In many areas, not just banking, moving legacy systems from COBOL programming and AS/400 hardware and the complex division of customer records is really, really hard. And I think that is what has caused a number of more established businesses to think very hard about their digital strategy. Some have decided that the best way forward is to digitize their front end so that customers can interact digitally with their bank while the established back end is still there and running. Others—the new tech banks like Monzo and Starling, etc.—have built a completely new digital stack, which means that both the front and the back end are supporting the customers through new technology. I think it's interesting to consider which is better.

It's really, really important that banking systems are robust, accurate, secure, and fit for purpose. But I do understand why some of the legacy banks are very committed to systems they know work and have been giving very good service to customers for many years. That said, I think it's inevitable that over the years, some of those old legacy stacks will wear out. And in the end, all of the banks, like all companies, will have to move off their legacy systems and onto new technology in order to be supported and capable of keeping up with what customers need.

Gavin Allen: Is it about just embracing the future and doing both front and back end now?

Jayne-Anne Gadhia: If I had to come down on one side or the other—keep your legacy technology or digitize and adopt new technology—I would definitely come down on the side of new technology. But we all have to understand that it's not as simple as waving a magic wand. It's complex, expensive, and risky. It's a big project that people will have to plan for over many years.

Gavin Allen: Is it less a magic wand and more a magic wallet? Are they investing enough in digital transformation?

> "In the end, all banks, like all companies, will have to move off their legacy systems and on to new technology to keep up with what customers need."

Jayne-Anne Gadhia: There are certainly huge numbers being bandied around by the big banks. So, I think all of the big banks are taking this seriously and, where possible, investing as much as they can in digitizing.

The big issue for all companies, not just banks, is that any sort of data migration is complex, and so even if you overhaul all your systems, you've then got to move the data from the legacy system to the new system. Doing that well, properly, and seamlessly for the customer takes real skill and needs to be done slowly and with real care. It's certainly not impossible, but I'm certain that banks will be planning how to do that well.

Gavin Allen: Do you think banks were quite slow to see the challenge of tech giants and challenger banks?

Jayne-Anne Gadhia: It's easy to create fintechs. But we do have to recognize that the "fin" part, the financial part, is as important as the "tech" part. The big banks are very well versed in how to run a bank well, in how to control, protect, and develop it, based on the systems and technology they've developed over the years.

I don't think banks have been slow to move; I think they've been cautious in moving properly, and I think that's the right thing to do. I don't think you can just throw away the old and start over with something as critical as this.

What I was planning to do at Virgin Money was to continue to run the bank on its legacy system and, in parallel, build a digital system. In that way, we could, over time, move customers from the legacy system to the new one. But they would run in parallel for quite a long period of time. A number of banks, or at least their products and customers, are likely to be developed that way.

Gavin Allen: Yes, you're carrying a bit of a porcelain bowl in terms of trust and security, and you have to handle it carefully. So, do you think banks need to employ digital experts, or is it enough just to partner with people who are experts?

Jayne-Anne Gadhia: Both, I think. As new technology is developed, there are inevitably subject matter experts that are outside all areas, not just that of a bank, and all institutions would want that knowledge and expertise. But I also think banks will want to make sure their technology is controlled by their own people, because it needs to be constantly operating correctly and providing a really secure environment.

If I were running a bank today, I would be saying, "I do want to work with external experts who are really on top of the particular technology that I'm using, but I also want to bring in-house digital expertise that can protect my bank and develop my own know-how."

Gavin Allen: I'm struck by the fact that Snoop is very much about money management. Do you think banks slightly lost sight of that prudence of the past—that they became more focused on getting people to buy more products rather than helping people to live within their means?

Jayne-Anne Gadhia: Yes, I do, although I don't think that's necessarily where some of the system issues for banks have come from. The thing that was different in the past, and has affected a number of legacy systems is that banking businesses were developed on a product basis, rather than on a customer basis. For nearly all of the years that I worked in banking, the Holy Grail was what we called the Single Customer View: to be able to go into my banking platform as Jayne-Anne Gadhia and see all of the products that I've got with various banks in one place. And because the system tended to be built product-first and customer-second, you couldn't do that.

But digital banks are able to start with the customer. That, for me, is the fundamental difference. The new technology has put them at the top of the hierarchy, where they can see the entire relationship they have with each other in one place, making it easier for customers to manage their money and see their financial position across the range of products provided.

Gavin Allen: What currently excites you most about the future of digital banking? And what's the next big opportunity for a visionary CEO?

Jayne-Anne Gadhia: It's certainly exciting for customers to be able to see their money all in one place and manage it effectively and efficiently—to see how to get the best deals and the best service.

> "The problem is that AI is taking in the data that evolved over the years, where human underwriters had tended to favor male customers over female customers, and AI is embedding that in the future."

At the moment, the underwriting processes for any sort of lending, whether that's secured mortgages or unsecured loans, are based on complex rules learned over time and tend to come as a result of customers being in different groups. If I applied for a mortgage, I wouldn't really be underwritten as Jayne-Anne Gadhia; I'd be underwritten as part of a pool of people that look a bit like Jayne-Anne Gadhia, if you know what I mean. With AI being able to understand everyone's individual personal financial behaviors and habits, getting that much more tailored underwriting will enable banks to manage the cost of credit better for their bank and their customers.

For banks, though, there's a lot of work that can be done to automate a lot of processes. I'd be surprised if CEOs and CIOs aren't thinking about that at the moment.

Banking is process-driven, and I'd be very surprised if banks are not thinking about how they can reduce the overhead of more manual processes and enable customers to deal with them in one go. That will lead, in the end, to more efficient underwriting.

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There’s a lot of work that can be done to automate a lot of processes. I’d be surprised if CEOs and CIOs aren’t thinking about that.

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Gavin Allen: In terms of the debate over AI, you sound as if you’re in the camp of “Press on” rather than “Press pause.”

Jayne-Anne Gadhia: Yes, I’ve been on a journey with that. I’ve definitely been in the alarmed camp, but I’ve concluded that, as with all progressive innovation, there are substantial benefits that can come out of it, and I think we should definitely press on and achieve those highlights.

But make sure we’re protecting ourselves against the downside. For example, somebody was saying to me that they had started to use AI to underwrite customers, and they discovered that AI was underwriting male customers better in all senses than women.

The problem is that AI is taking in the data that evolved over the years, where human underwriters had tended to favor male customers over female customers, and AI is embedding that in the future. They have to watch out for things like that. Once we’re able to both protect ourselves against the downside and make sure that the learning of AI is based on not just historic data, but on the data that we want to use going forward, then it can only be good, I think.

Gavin Allen: What are the other challenges facing banks when it comes to competing in a digital landscape?

Jayne-Anne Gadhia: I remember Barclays saying years ago that, effectively, banking would become a technology business. The competitive position would be decided based on who had the best technology and technologists.

I don’t completely agree with that, because banks are complex things, and it’s really important to be able to understand your credit risk, have relationships with your customers, and understand how your balance sheet works. Those are the real core USPs of retail banking. But provided you can get that right, then I suspect that being excellent in terms of digital technology will certainly be a competitive advantage.

Gavin Allen: Does digitalization bring universal financial inclusion closer, allowing more of the unbanked and underbanked to be banked?

Jayne-Anne Gadhia: If you assume that the vast majority of people have some digital capability—they have a phone—then clicking and accessing banking is easier.

But I think financial exclusion exists not just for reasons of access and technology. There are much broader issues around numeracy. It’s really important that we help everyone develop numeracy, as you can’t just use a banking app; you also need to be able to understand the inputs and outputs. In some ways, that easy access and easier response mean that we all need to be more numerate to understand what we’re doing. That is still something we need to work on. The big banks, in particular, have said they don’t really make any money out of the people who are financially excluded. It’s a vicious circle. So, if we could find a way to provide straightforward access, improving numeracy, and if the delivery of the products to people currently excluded could be cheaper, then perhaps the big banks would start to service that contingent even better than they do today.

Gavin Allen: Finally, do you think that what some see as the ongoing global decoupling between East and West is having (or will have) an impact on digital banking’s regulation, values, and data security?

Jayne-Anne Gadhia: I hope we can learn from each other in terms of product, technology, customer service, risk, and regulation so that we don’t have that decoupling and can constantly offer customers better value.

In the West, we haven’t been able to develop anything as ubiquitous as WeChat, but I’ve always looked at that as something to aspire to, and that’s motivated me, in terms of how you might serve the customer. I would hope the core of banking remains. The ability to transfer money, to have access to money, and to save is something that customers want, wherever they are in the world. But I think there will be differences in how we offer products and services, and it’ll be great to learn from each other and to give all customers a good deal.

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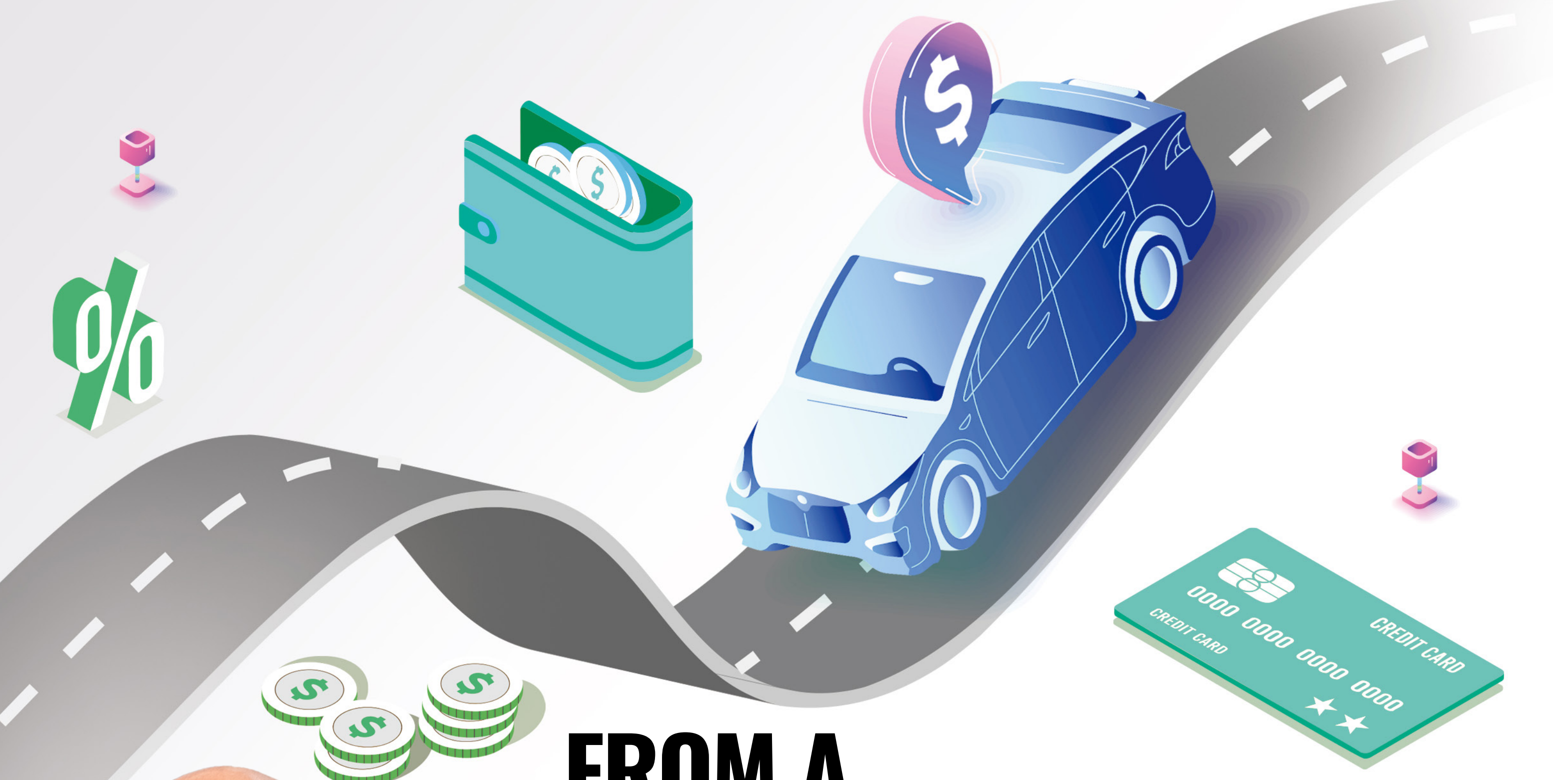


FROM A "VENEER OF DIGITAL" TO SELF-DRIVING MONEY: THE ROAD AHEAD FOR BANKS

David Brear

CEO of 11: FS, a fintech consultancy

Gavin Allen: What is the most common mistake legacy banks make when it comes to going digital?

David Brear: Banks approach everything like a project, working on 12-month budget cycles, picking two or three big bets, investing for two years, and at the end of it having a "thing". But the world just doesn't work like that.

The advent of the internet and the digital wave that hit the shores of financial services fundamentally changed how an organization has to operate. It needs to be iterating quickly and listening to customers because of the increased competitiveness of the market. It's the old Darwin quote: it's not the strongest of the species that survive, but the ones most adaptable to change.

And the market is changing so quickly—that's what organizations need to focus on. You've really got to connect with customers and understand how technology fundamentally changes the operating model of your business.

Gavin Allen: And have they been slow to do that?

David Brear: The challenge is when the things that made you successful are no longer the things that are your greatest advantage in today's market. What we're seeing is a veneer of digital—the pursuit of features and functionality over really embracing digital as a way of being. This is an industry in transition. We've gone from a predominantly analog establishment with physical money, physical branches, and physical people to the pursuit of replacing those things. So, why are banks doing that? It isn't to solve customer problems. It's to solve their own problems.

It's about reducing operational costs. It's about being able to do the things that they did analog-wise, but doing them digitally. People basically manifest pieces of paper on the internet, and really, that misses all of the real advantages that digital can bring. So, I would say that they are failing. Despite billions and billions of pounds being spent, they're not really embracing digital in the way that they could.

> **"What we're seeing is a veneer of digital—the pursuit of features and functionality over really embracing digital as a way of being."**

It's why we're seeing gigantic banks spend £12 billion a year to keep their technology estate alive. That wouldn't be the case if they were doing it properly. If the market's shifted, but you're still playing the same game, in the same way, with the same 200- to 300-year-old business models, then you're never really going to maximize your advantage in the way that a start-up might do, or somebody coming fresh into the industry and really taking a new look at it.

Gavin Allen: What would it entail to get past that veneer and, as you say, "do it properly"? What are they currently not doing?

David Brear: A technology organization iterates and will deploy, in a singular product, code-to-live maybe 100 times a day. And that organizational rhythm of small increments of testing and learning, of de-risking change, of having tech that allows you—if there are mistakes—to re-build systems in seconds, is fundamentally different from a bank's culture. If it takes you longer to build the capability and get it to market than it does to talk to your consumers, then you're probably always building something out of date, for a market that was two years ago when you started that project. The most important thing about any project is that somebody actually cares about it at the end. We find that because of banks' culture and elongated approach of getting things to market, they spend more time on strategy than they do on execution. Companies that have really embraced digital spend much more time executing because, fundamentally, ideas are easy. It's executing and getting them into the hands of customers, which is the bit that really drives the business forward, increases sales or customer satisfaction, or decreases costs. Not talking about it.

Using more than 1% of your digital potential

Gavin Allen: You've spoken about the difference between digitizing bank operations and full-on digitalization, and said that most banks have embraced only 1% of their digital potential. Is that the cultural issue you're referring to?

David Brear: Definitely. Every organization is made up of people. It's the constraints around those people, the culture of the organization, the budgetary controls—everything that manifests the way in which those people can behave. And when you look at large US banks with multi-state licensing or gigantic global banking organizations with 20 different monolithic structures in 60 different countries, then the sprawling estate of technology becomes almost impossible to manage in any coherent way. And this is why they become paralyzed.

> "When you look at gigantic global banking organizations, the sprawling estate of technology becomes almost impossible to manage, and they become paralyzed."

It's easy to manage marketing. The hardest thing to manage is real change. There's a need for organizations not to be driven by next year's profitability and revenue but to take a long-term view of what is required to fundamentally change the fabric of that organization. We joke that digital banking is 1% finished because of how little impact it's had. There are opportunities ahead to solve real problems for customers and make financial services better. We have the tools to do it, and, more fundamentally, we've got competitive pressure in the market. That means banks will no longer have the ability to do nothing about this problem.

It can't be taught, and it can't be bought

Gavin Allen: You've previously said that culture and a new mindset are things that "can't be taught and can't be bought." But if you can't teach or buy it, how do the legacy banks get there?

David Brear: Digital product management is a dissemination of decision-making to the edges, and that's difficult in a traditional command-and-control power structure. Product managers need to make decisions because things are going live 100 times a day. They've got to have a deeply ingrained connection to their customers and solve problems for them. The problem with trying to buy the outcome is that if you don't really understand fundamentally how hard it is to deliver, then the management and maintenance of it are much more difficult than the building of it in the first place. If you outsource all of your intelligence to somebody else, then what are you left with as an organization? Every IT department thinks they can build anything. But does your organization actually have the ability to sustain the development, the progression, and the integrations that are needed to really make that thing flourish?

We've seen examples of people building core banking systems completely themselves, but three years and £400 million later, they're thinking very differently about those things because they're not their core capabilities. Fundamentally, they are not technology businesses and are not structured in that way. They don't have that talent or the basics of the cultural budgeting processes to really make those things happen. It's a dangerous world because people who are brilliant at these things make it look easy, in the same way that Michael Jordan made shooting a three-pointer look really easy. It takes hard work, determination, and real dedication to bring together the right people and enable them to do the right work. Without that, you can bring in big consultancies or big tech firms or whatever and pay them to solve these problems for you, but that's like getting your personal trainer to do all of your press-ups and sit-ups for you. When all those organizations have gone and you're left with your own organization, you need to have the talent, skill set, and culture to really make things happen.

In vino veritas

Gavin Allen: So, you can have these partnerships—the external advisers, consultants, infrastructure as a service, and all the rest of it—but you've got to have some core abilities in understanding as well. You can't outsource everything; you can't outsource knowledge.

David Brear: Yes, I think there's an insourcing of ability. Don't outsource your intelligence is a mantra of mine, but equal to that is ensuring that you have senior leadership with an appreciation of it as well. There are far too few C-suites and banks with real, deep technology experience. And that leads to a distortion of reality about what can or cannot be done. I've got no idea about wine, so the idea that anybody would allow me to pick what bottle of wine to have over dinner is a travesty to anybody who knows anything about wine. It's the same for senior leadership in organizations: you've got to break the cycle. If you don't have the skill sets to understand what good technology looks like and what the impact of bad technology is, then you've got to get that talent into your organization now. You've got to have people who have been there, done that, and really made it happen. You want the frame of reference

> "It's a dangerous world because people who are brilliant at these things make it look easy, in the same way that Michael Jordan made shooting a three-pointer look really easy."

for decision-making to be of today, rather than yesterday—leadership that evolves their thinking and understanding of advancements in technology, the competitive landscape, and therefore their position in the market. All of these things lead to fundamentally better decisions.

Gavin Allen: Huawei offers core support services and solutions to a lot of legacy banks. You obviously support partnerships but are saying that bankers need to work together with these technologists, to truly understand the tech.

David Brear: Absolutely. The relationship has moved from a traditional master and slave—we pay you to do these things, and then you go away—to much more of a partnership. A big part of that is not just doing, but learning. It's the pursuit of a different outcome with a different culture that creates sustainability. It's like construction: get the foundations right, and you can build a pretty tall tower.

Self-driving money

Gavin Allen: A couple of years ago, you said you'd still not seen a truly digital bank. Is that still the case?

David Brear: I'd still say that digital is an emerging thing. When you look at financial services organizations, we're in this weird, first combustion-engine car phase. The things that are out there look oddly similar to the old organizations, but under the hood, they're fundamentally completely different beasts. The first car looked like a horse and cart to stop people from freaking out. But it didn't have horses; it had a combustion engine. The new banks that are out there now look very much like the traditional retail banks, but under the hood, they're very, very different things in terms of what it costs to run them and their ability to deliver at pace. What we'll start to see is the march towards self-driving money.

We've got to a point where the industry offers quite basic self-service, but people's financial literacy or understanding of basic financial terms is getting worse. Financial services need to move to a place where they're fundamentally there to make people better off.

Machine learning, algorithmic banking, and AI, along with the opening up of data platforms to gain access to information, allow you to present people with better decisions. The concept of self-driving money is where my bank is there to make me better off. It will move my money around to make sure that I'm always getting the best products at the best rates. I'm always being looked after, and I effectively sign away power of attorney for that. That feels like the future to me. I don't think people really want self-service. They want a service. In the race to digitize analog, the bit that we lost most was empathy, the management and translation of those difficult subject matters. The human part is the missing ingredient.

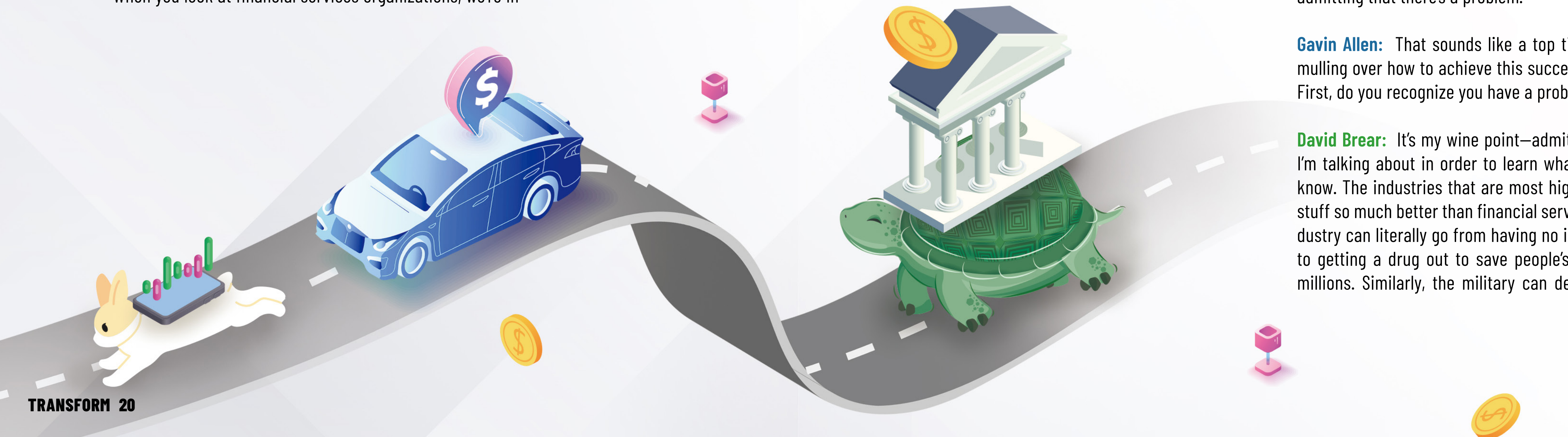
Gavin Allen: You've compared legacy banks and startups to the race between the tortoise and the hare—that legacy banks move really slowly. But, of course, the tortoise ultimately won that race. So, do you think legacy banks will come good in the end?

David Brear: Except that the hare should have won that race 100 times out of 100. It was the hare's overconfidence and arrogance that meant that the race wasn't a formality. And maybe that's a good warning for the industry. This race has a long way to go, and legacy banks have still got hundreds of millions of customers globally, with deep pockets to invest in solving these problems. Fintechs have still got a long, long way to go before they even remotely catch up in terms of scale. So, the race is definitely not over. You wouldn't bet against the people with all the money and customers to mount a comeback. But what's stopping them is themselves. They have to let go of the things that have made them successful and understand that the market has fundamentally changed. It needs a shift in mindset to allow a new one to really take root. Every 10-step program starts with admitting that there's a problem.

Gavin Allen: That sounds like a top tip for any bank exec mulling over how to achieve this successful transformation. First, do you recognize you have a problem?

David Brear: It's my wine point—admit I have no idea what I'm talking about in order to learn what it is that I need to know. The industries that are most highly regulated do this stuff so much better than financial services. The medical industry can literally go from having no idea about something to getting a drug out to save people's lives without killing millions. Similarly, the military can decommission submarines and take new things to market. Bankers sometimes try to warm themselves under a blanket that says this is too hard and nobody else is doing it. But the reality is that they're being left behind because every industry is doing it. That leaves opportunities on the table for other people. The biggest threat to banks probably isn't fintech—it's the big technology companies that get this better than anybody else does. They can get in front of the consumer and solve real problems for them with a brand that they don't just tolerate but really love. That fundamentally changes the way in which the industry shakes out. They've got more budget, more customers, and bigger brands than any of the banks. That becomes super interesting, but equally incredibly scary. You've got to have the emotional intelligence as an organization to let go of "owning" the customer when it comes to the distribution of the products you sell. That's well-trodden territory for tech players. But that's really new for big banks. So, that's a scary thing or a great opportunity, depending on which side of the argument you're on.

> **"The concept of self-driving money is where my bank will move my money around to make sure that I'm always getting the best products at the best rates. I'm always being looked after. That feels like the future to me."**



SPEARHEADING CHANGE IN ETHIOPIA'S FINANCIAL LANDSCAPE

Frehiwot Tamru

CEO, Ethio Telecom

Ethio telecom, a pioneer and giant telecom service provider in Africa, has served Ethiopia for the last 129 years. As a leading brand with a customer base of 72 million, it has played an enabling role in the multifaceted development of the country. It is the second largest of the 195 telecom operators on the African continent, and the 21st largest of the 774 operators worldwide.

Broadening its business horizons by looking to digital finance, Ethio telecom launched its Mobile Money service under the brand name 'telebirr' in May 2021. A major focus was to address the financially excluded and underserved segment of Ethiopian society and bridge the gap in the country's digitalization efforts.

The backbone of Ethiopia's financial inclusion

Developed in collaboration with Huawei, telebirr is Ethiopia's first operator-led mobile money platform. Its adoption rate is surprisingly high, with telebirr acquiring 36 million subscribers within just two years of its launch, while handling transactions worth more than 1 trillion birr.

Since its launch, telebirr has grown significantly. It offers differentiated services from basic mobile wallet services to the enhanced mobile digital financial services such as micro credit, micro saving, over draft services, P2P, credit pay, and more. With just a mobile phone, people can make deposits, pay bills, send money to family and friends, remit money internationally, and even get instant micro-credit.

Especially noteworthy are telebirr's mobile financial services: micro credit and micro saving services launched in August 2022 are playing crucial role in transforming the nation's mobile finance and ensuring financial inclusion. In a year's span, more than 2.7 million citizens were able to get micro loans worth 6 billion birr in total, while more than 880,000 customers saved over 5.2 billion birr.

Major milestones for telebirr

In addition to advancing financial inclusion, telebirr is fostering the digital transformation of the country. It is simplifying the lives of individuals, while enabling businesses and public enterprises to digitalize their services to increase their productivity and efficiency.

As a further innovation, telebirr recently upgraded to telebirr SuperApp, which provides access to multiple services through engaging mini-apps. It is integrated with multiple ecosystem players like government services, private companies, and the country's start-ups so they can easily access and be accessed by the 36 million customers of telebirr. Online public services such as e-government services are now possible, enabling hassle-free cashless transactions for customers. People can now pay their taxes, utility bills, and other fees using their phones. The government recent move towards cashless payments for fuel transactions shows what a powerful and promising tool telebirr is.

Supporting this growing ecosystem, telebirr has 136 master agents, 110,000 agents, 60,000 merchants, and 23 banks working in tandem. With over 52 public and private institutions integrated into telebirr, it has emerged as the most interoperable mobile money platform in Ethiopia.

telebirr's winning strategy

telebirr's success stems from its extension network coverage across the country (99.1%), as well as from its large customer base of more than 72 million, its 300,000 point-of-presence through partners, and its distributors, retailers, franchisees and its own service centres. The localized names assigned to the services and the commission-based structure for customers and agents have helped create widespread acceptance of telebirr. Aggressive social media campaigns and referral marketing programs such as cash back, cash for recharge, and other future transactions were launched.

Partnerships are a key success factor. There are a total of 521 major telebirr integrations. An integrator has been engaged to integrate merchant platforms across a wide network of retail and business partners, allowing customers in supermarkets, companies in entertainment and hospitality service, hospitals, pharmacies, and cafes to pay service charges using telebirr.

telebirr aspires to become a digital marketplace and the largest fintech platform supporting the digital economies of Ethiopia and Africa. Ethio telecom desires to facilitate the digitalization of industries such as education, agriculture, gaming, health, lifestyle, and more. At the same time, it aims to help telebirr evolve into a payment lifestyle brand that gives customers a one-stop shop for all of their financial service needs.

Challenges in implementation

While implementing telebirr, diverse sets of challenges were faced such as lack of digital literacy, regulatory challenges, and building a reliable agent network. Lack of awareness of the platform in low-income markets and rural areas prevented widespread adoption among merchants in those areas. It has built an agent structure by developing its existing airtime distribution channel. Ethio telecom owns more than 300,000 retail outlets and more than 500 shops across the country. Realizing their potential, it made its major airtime distributors as master agents with development of more flexible use cases and offerings which are attractive to the agents as well as the customers.

Ethio telecom is engaging with the National Bank of Ethiopia to address the regulatory challenges associated with mobile payments. For example, the transaction limit should be increased so customers get the flexibility to do more transactions with the convenience of a mobile connection. Integrating very small informal enterprises such as shoe-shiners and street vendors is another challenge because these businesses don't fall under the purview of the country's taxing or licensing codes.

Ethio telecom is working with all stakeholders to deal with these and other challenges. It is proving the power of telebirr in accelerating financial inclusion and realizing the full potential of Ethiopia's digital economy.

CASHING OUT: THE CASE FOR *CENTRAL BANK DIGITAL CURRENCIES*

An interview with Willem Buiter, Adjunct Senior Fellow at the Council on Foreign Relations and former Global Chief Economist and Special Economic Advisor to Citigroup

What is a CBDC, and how does it differ from ordinary cash held in a commercial bank account?

A CBDC is a central bank digital currency. Regular bank deposits represent a liability for a commercial bank. CBDCs are liabilities of central banks—government entities that control a country's money supply in order to regulate inflation and economic activity.

With a CBDC, you basically have an account with a central bank. Your assets are more secure because they're not subject to "run risk" of the kind we've seen recently in the US with Silicon Valley Bank.

You argue that interest-bearing CBDCs are needed so that policymakers can push interest rates below zero if they also abolish conventional currency. Why would they need to do that?

Sub-zero interest rates are useful when policymakers want households and businesses to spend money instead of saving it. For the past 20 years, prior to the COVID pandemic and the recent inflation surge, interest rates have been close to zero most of the time in most advanced economies.

To stimulate the economy, central banks would have liked to push them below zero, but they couldn't do it because there's currency out there offering a zero rate of interest. Zero's not great, but it's higher than a negative rate. So, if you had a CBDC account paying a negative rate of interest, you wouldn't keep your money in it. You'd switch to cash.

The existence of cash therefore sets a near-zero floor under the policy rates the central bank can set. This can become a problem again in the future if we experience another period of below-target inflation and near-zero interest rates.

So for negative rates, CBDC only works if you eliminate cash.

That's right. And it's not a far-fetched prospect. In Sweden, cash has effectively vanished—not because the government has abolished it, but because people simply don't use it anymore. There's no demand. The entire country has mobile coverage, and about 85% of the population has access to mobile banking.

Technically, you could eliminate cash gradually by first getting rid of large-denomination bills. This happened in the Eurozone, where new issuance of the 500-Euro note was phased out in 2019.

If the central bank set negative rates, could depositors not choose to move their money into a commercial bank that paid a better rate than the CBDC?

The commercial bank would be making losses by paying a positive interest rate on deposits while getting a negative interest rate on its lending operations. The commercial bank would have to follow the negative interest rate set by the central bank.

Some people aren't connected to the internet. If cash was eliminated, wouldn't those people be cut off from being able to pay for things?

To prevent that, countries would have to create a digital currency that is available for legitimate use by everyone, both offline and online.

> “CBDCs could actually enhance financial inclusion.”

What would a digital currency look like offline?

Like the connections you get today with near-field communication. NFC connections let you transfer small amounts of data wirelessly over very short distances. Tap-to-pay credit cards are an example.

So, CBDCs could actually enhance financial inclusion. An offline digital payment system could bring unbanked people into the formal financial sector. Through NFC connections, those people could transact with entities that are already integrated into the formal financial system. That would be a first step toward entering the system themselves.

What about privacy? CBDCs would make every purchase trackable. Why not preserve anonymity by using cash?

Cash does preserve anonymity. But for that very reason, it also facilitates tax evasion, money laundering, counterfeiting, bank robberies, and even the financing of terrorism.

But you could create pseudonymous CBDC accounts using blockchain. The public identity of the wallet holder would be visible to all on the blockchain—even more public than a regular bank account. But because the accounts use pseudonyms, the identities of the digital wallets' beneficial owners would be kept private.

Eswar Prasad, an economist at Cornell, has argued that CBDCs could become so popular that commercial banks are "starved of deposits." That, he argues, could hurt the banking sector and damage the economy's ability to allocate credit. Do you see this as a risk?

Not necessarily. To preserve the financial intermediation system, central banks can re-deposit their CBDC deposits in commercial banks. We will figure out a neutral way to do this, so the disruption will be manageable. People will hold CBDCs the same way they hold cash and bank deposits today.

How do you see things unfolding with CBDCs in the future? Will governments get rid of cash?

I see cash and traditional currency being phased out and replaced by interest-bearing CBDCs. Sweden, China, India, Nigeria, and other countries are experimenting with CBDCs, and I believe that eventually, most central banks will issue their own. Five to 10 years from now, CBDC accounts will be part of the new normal.

Which countries have CBDCs now?

The web site of the Atlantic Council, a US think tank, lists 11 countries as having launched CBDCs, including Nigeria and seven countries in the Eastern Caribbean. The site lists about 45 countries as having CBDC pilot schemes underway, plus nearly 80 countries looking into the matter or having CBDC projects at various stages of development.

> “I see cash and traditional currency being phased out and replaced by interest-bearing CBDCs.”

DRIVEN BY DIGITAL PRESSURES, TRADITIONAL BANKS ARE LEARNING NEW TRICKS

> "If you, as an organization, are not culturally adapted to change, you're going to have a very difficult time adapting to the changes in technology?"

Paul Siy

Chief Technology Officer of BDO Unibank, the largest commercial bank in the Philippines

Gavin Allen: What challenges has BDO faced over the past few years, and how have those challenges been met?

Paul Siy: It was very difficult in the beginning when we started during the pandemic. We did not really have any tools in terms of being able to provide digital services in terms of, let's say, working from home, or even providing our staff with the necessary capabilities so that they could work remotely.

We changed all that very quickly during the pandemic. We were able to deploy tools that will allow our people and our systems to be accessed remotely. We beefed up our digital banking capabilities so that our clients, if they choose to transact with us, either digitally or in the branch, can do that.

We built a new data center infrastructure. We allowed data to be replicated from one data center to another, which is very important. You have to make sure your data is preserved, whether it's running on data center A or data center B. And you could easily switch between those two areas once your application either goes down, or you want to switch quickly to another data center.

The other thing that we did was really beef up our digital banking capabilities. During the pandemic, we saw a large spike in the number of users using mobile banking. It probably went from the normal level to about two to three times that in a span of weeks.

Gavin Allen: Through sheer necessity.

Paul Siy: Through necessity. Because of the pandemic, there was a lockdown. I think most cities, most countries experienced that. The only way you could transact was digitally.

Gavin Allen: So what productivity gains has all this enabled you to have as a bank?

Paul Siy: Well, one of the things that we recently deployed with Huawei was Wi-Fi. We have enterprise Wi-Fi in a lot of our locations. All of our users used to be connected via cable. Now, they can work more freely with the Wi-Fi that we put up with Huawei's help.

The other thing that we've done is, going back to the data center scenario, replicate databases from one data center to another without any lag. And that has really helped us.

A third project that we're working on now is moving our backups from the old traditional tape into storage media, which will allow us to really manage a lot of the risk and also have the ability to quickly backup and restore a lot of the data that we might need.

Gavin Allen: You've obviously really adapted to these changes and embraced them, and as a result, you're giving a better service. Are you surprised that not all banks have been quite so agile?

Paul Siy: One of the things that I've always sort of prophesied was a change in culture. Frankly, in the four years that I've been at the bank, the first two years were really focused on changing the culture of the team and the way the team thinks. They have to accept change.

I mean, just look at what's happening in the technology world. With the implementation of AI, the speed at which technology is changing is just amazing. If you, as an organization, are not culturally adapted to change, you're going to have a very difficult time adapting to the changes in technology and to the changes in the world.

Gavin Allen: And what will AI do, do you think? That's clearly going to bring even more changes.

Paul Siy: One of the key things is putting more AI into the storage, into the networks that we purchase from Huawei. Maybe acquiring more adaptive capabilities in terms of looking at where the faults could be, where the problems might lie, or predictive analysis, so that if there are issues that could happen in the near future, the system would alert you.

In addition, we're looking at other ways that we can use AI. We're trying to build chatbots now that are very much conversational. You might think that you're talking to a person, when there's actually an AI bot behind it. That holds a lot of promise.

Scan QR code to watch the full interview

Gavin Allen

Editor-in-Chief
Huawei Technologies

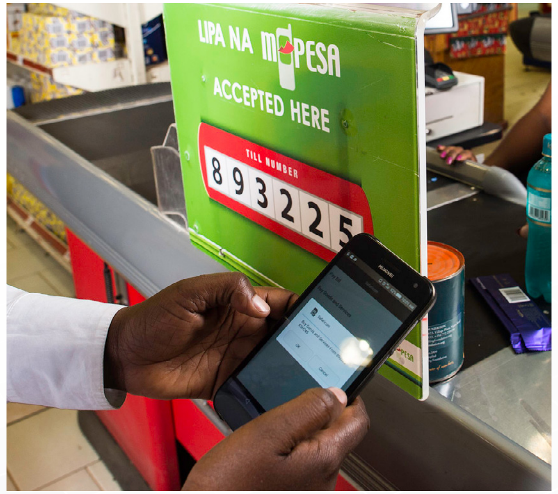
IN KENYA, M-PESA OPENS UP FINANCIAL HORIZONS FOR SMALL BUSINESSES—AND THE UNBANKED

Ian Ravenscroft

Vice President, Huawei Software
Former Global CTO of M-Pesa at Vodafone

Since its launch in 2007, M-Pesa has evolved from a simple money transfer service to a platform serving a wide range of customers: unbanked consumers, younger digital natives, large businesses, and small to mid-sized enterprises (SMEs). It offers a diverse range of digital services across areas such as e-commerce, transportation, health, education, and entertainment.

M-Pesa is distinguished by its innovative business models, which replace transaction fees with subscriptions or revenue-sharing agreements with partners. By 2014, just seven years after its launch, M-Pesa was responsible for 20% of Safaricom's revenue. As of last year, that percentage had doubled to 40%.



Leading a financial revolution

The growth shows no signs of slowing. M-Pesa has revolutionized the way money is transferred and managed in Kenya, giving customers more control over their daily lives and saving them valuable time by digitizing essential activities.

For consumers, M-Pesa offers the convenience of online purchasing, discounts and rewards, referrals to new services, access to savings and loans, and the ability to carry out daily tasks on their mobile phones.

Businesses gain access to a wider market for their services, plus the efficiency of online processes with user-friendly dashboards and reports.

Huawei's partnership with M-Pesa has been instrumental in driving its success by enhancing customers' experiences, overall performance, and service innovation. Since the successful migration of the service to the Huawei platform in 2014, Huawei has invested in and innovated technologies to keep pace with the scale and expansion of the M-Pesa service over the last decade.

> "M-Pesa has revolutionized how money is transferred and managed in Kenya."

Here's a quick look at the key innovations and their impact.

Enabling microloans. In 2014, M-Pesa introduced microloans, which provide credit to individuals previously cut off from the financial system. These loans have helped SMEs and entrepreneurs grow their businesses and improve their lives. This was made possible due to the existing M-Pesa financial activity being suitable for creating a credit profile that lending partners could use in their approval processes.

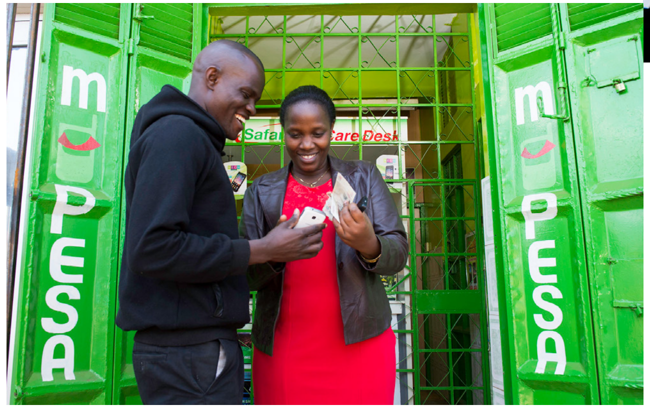
Seamlessly connecting systems. M-Pesa integrates with existing payment systems, allowing users to link their accounts to banks. This bridge between formal banking and mobile money services has driven financial inclusion and made transfers smoother than ever.

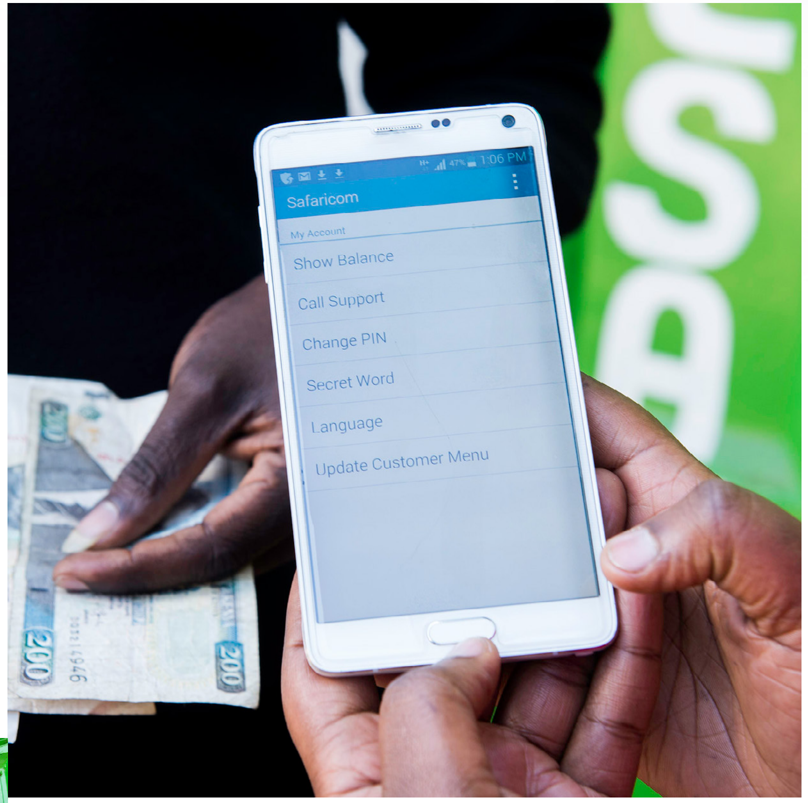
Empowering women. M-Pesa has had a profound impact on women, who often face barriers to financial services. With M-Pesa, women have gained control over their finances, enabling them to save, budget, and make independent decisions. This empowerment leads to gender equality and economic progress.

By offering faster, more accessible, and affordable financial services, M-Pesa has disrupted traditional banking models. Many previously unbanked individuals now rely on M-Pesa for their financial needs, reducing their reliance on physical banks.

M-Pesa's digital transactions have also reduced the reliance on cash in Kenya. Traditional banks have had to adapt to the preference for digital payments, changing the way they operate.

“Microloans have helped SMEs and entrepreneurs grow their businesses and improve their lives.”





“M-Pesa's impact on traditional banking is undeniable.”

Keeping up with M-Pesa

Hoping to challenge M-Pesa's dominance, many of Kenya's old-school banks have responded by developing their own mobile banking apps and digital payment solutions. Some have partnered with fintech companies to enhance their digital services and facilitate international transactions.

They have also begun implementing new marketing strategies. Many now use targeted ads on social media, along with personalized campaigns, to promote their digital services to a wider audience. They also focus on educating customers about the benefits of using digital services, including enhanced security and time-saving features. Banks incentivize customers to use digital services by creating loyalty programs offering rewards and cashback incentives.

Finally, to keep up with the evolving financial landscape, traditional banks integrate fintech services into their existing infrastructure. This allows them to offer innovative services such as peer-to-peer lending and digital wallets.

M-Pesa has revolutionized mobile finance in Kenya, bringing accessible and convenient services to the masses. Its impact on traditional banking is undeniable, disrupting traditional models, reducing cash transactions, and presenting challenges to physical banks.

But those banks have adapted by developing mobile apps, collaborating with fintech services, and implementing effective marketing strategies. Collaboration with fintech services, including M-Pesa itself, has allowed banks to enhance their digital offerings and stay competitive in today's ever-changing financial world.

FROM 70,000 CUSTOMERS TO *25 MILLION* IN ONE YEAR

An Indonesian bank goes digital, fast. Justin Chen, Director of IT and Operations at Bank Neo Commerce, tells *Transform*'s Gavin Allen how they did it.

Gavin Allen: What prompted your company to embrace digitalization and launch the Neobank app two years ago?

Justin Chen: Actually, we could see a very big potential, like back in 2020, when more than half of the population in Indonesia was unbanked or under-banked. First, we believe this is a big opportunity, and second, we want to help the Indonesian people access more financial services. Indonesia is growing very fast. We hope that ordinary people, especially in remote areas, can catch up to the tide of financial services.

Gavin Allen: What challenges did your bank face?

Justin Chen: We needed to start quickly, because of the market—when you see something, when you see an opportunity, there are a lot of other people also looking at it. At the very beginning, we considered it like an online business. You need to do it fast. You need to conquer the market.

But no, because banking operates according to different rules. You cannot conquer the market, and the regulator doesn't allow you to do that. We focus on serving our customers. That's the most important thing you have to do.

Gavin Allen: But was it quite difficult going from an established bank that had been around at that stage for 30 years, suddenly into a digital environment?

Justin Chen: That's two parts. First, you need to build up all the new systems. For this part, it's not that easy, but it's not that difficult because building up systems is what we do. But you also have to change the way the bank works. You have to change how people interpret the business.

In the past, when someone walked into the branch, your branch manager was already evaluating these people: How much money can I make from him? For the Internet business, because you don't see the people directly, you have to do something that's not easy to verify in real life. You need to check all the data. You need to do the statistics so you know if what you're doing is right or wrong.

Gavin Allen: You've talked about the importance of flexibility. What do you mean by that?

Justin Chen: BNC is a small bank. We are not a super-giant like BCA or Mandiri. When they want to change something, they need to consider a lot.

But at BNC, when we started this business, we only had like 70,000 customers, so there aren't many legacy burdens on our side. We need to do things very fast. It's like an auto race where you have to change the wheels while the car is running. That's what I mean by flexibility. We can't wait there in the garage until we build a super good car; we have to join the race now, no matter what.

> **"It's like an auto race where you have to change the wheels while the car is running."**

> “At first, we thought it would be like an online business. But banking is played with other rules.”

We have a flexible architecture and organization to make sure I can change all the parts while I'm racing.

Gavin Allen: What has helped you succeed? You talked about having 70,000 customers originally with the old bank, and you got something like 30 million in the first year with the digital bank. What enabled you to get to that stage?

Justin Chen: Surprisingly, what we are doing is way easier than we expected in the early days. Indonesia has very good infrastructure. For example, they have digital bills. You can do online KYC [Know Your Customer]. So that means your customers don't have to come to a branch. You can just prepare a very nice user experience so that all they need to do is open their account from their app. Not many Indonesians had experienced that, but they found it was really good for them. In the past, they had to go to the branch. And sometimes they are shy. When you don't have that much money in your pocket, you might be afraid to go to the branch and be questioned by the teller. But now they can do it without interacting with people.

Gavin Allen: And also at their own convenience, at the moments they want to do it.

Justin Chen: Yes, that's the best thing for them. You know, they need to take a selfie because we do facial recognition [to verify their identities]. In the very early days, I checked photos on the back end. I saw that their faces were very happy. Not like when they're sitting at the front desk with a teller, where they're quite nervous.

Gavin Allen: So how has Huawei helped with this digital transformation?

Justin Chen: We employ Huawei Cloud to help grow our business more easily. When the business was getting more complicated and the volume was growing, we found that infrastructure maintenance was also a big problem. Whenever you want to change something, you find your hands are tied because of this, because of that. We said to Huawei, “I will just leave all the trouble to you, and focus on how to make money.”

Gavin Allen: To summarize, then, in terms of where you are now in terms of numbers, or how you measure success currently?

Justin Chen: In terms of user base, I would say we have a kind of success, because we've got maybe 25 million customers at this moment. In terms of deposits, we should have more than US$1 billion. Also, we have a large volume of transactions. We are not profitable yet. So that's the last part: profit.

> “People could open their account from their apps. Not many Indonesian people had experienced that.”

TRACK THE TECH, BENCHMARK THE BEST, AND REMEMBER THAT THE CUSTOMER IS KING

KT Chen

Chief Digital Transformation Officer at Huawei

Gavin Allen

Editor-in-Chief Huawei Technologies

Gavin Allen: So, what does digitalization mean for the banking industry right now?

KT Chen: Customer behavior is changing and everybody is using mobile. Customers have come to expect all service providers to use technology to serve them.

For example, people are getting used to using mobile QR codes for payments, because it's secure and convenient. So if customers are already used to digital technology and a good digital experience, then, as a bank, you have to deliver that kind of experience to them.

Gavin Allen: So, the customer is king or queen, and the banks, particularly legacy banks, have to really respond to that. Is that the key digital challenge for them?

KT Chen: Exactly. And customers can switch between different apps. So, if any Internet company like WeChat, a popular social media platform in China, gets into the payment business, customers quickly get used to using it. This disrupts the payment market.

Gavin Allen: Are the established legacy banks changing fast enough to adapt to that?

KT Chen: Banks are conservative because they are highly regulated. They usually don't change quickly.

Gavin Allen: What can Huawei offer in terms of services to help banks make that transformation?

KT Chen: Huawei has significantly invested in networking, storage, infrastructure, cloud-native architecture, and mobile. For mobile usage, China is probably the leading market in the world.

China Merchants Bank, where I used to work, was pretty much the first bank to 100% adopt the mobile application. Forget the bank card, forget the cash, and focus on the mobile. Do everything mobile first. Recently, they got rid of the legacy system and migrated the total banking application into cloud-native architecture.

Gavin Allen: It's quite daunting. I mean, if you're a legacy bank, it can be quite a daunting experience to adapt everything.

KT Chen: Usually, you have failed and learned lessons when you compete with big tech companies. You have to have different sorts of philosophy and technology, or you even have to change yourself.

> "We'll need high-quality data in the future to build our AI models. Nobody can escape this change."

For example, if the customer uses a mobile phone with a small screen, and you want it to be easy for a customer to use, you have to put all your products and services on that mobile screen. That means it's not just a technology issue. It is also an organizational issue. You have to have somebody take care of the mobile homepage, run mobile brand campaigns, and so on.

Gavin Allen: Are you seeing a willingness to do that? Are you seeing legacy banks really putting technology at the heart of what they're doing, rather than tacking it on as an extra?

KT Chen: In the past three to four years, we have seen banks moving in that direction. It depends on the bank. Every market has its pressures and its special characteristics. But we can see the trend clearly.

> **"You can feel AI coming. In financial services, you have to follow the technology."**

I think Huawei can offer a lot of experience to share with the customer when they undergo digital transformation. We can provide experience and advice, plus robust infrastructure to help the customer smoothly transition to modern architecture and applications, so their business adapts better to the digital era.

Gavin Allen: What impact do you think AI could have on banking?

KT Chen: AI is really changing consumer behavior. For example, everyone uses ChatGPT.

Gavin Allen: Even me.

KT Chen: Exactly. So, you can feel AI coming. In financial services, you have to follow the technology, you have to understand your customers' behavior, right? If they are changing...

Gavin Allen: But do you have to wait until the customer changes, or should you be anticipating change?

KT Chen: You've got to prepare for it. You can try to build, but you need to prepare the data because the banks have so much of it. We have hard-copy documents, dialogue with the customer. All kinds of things. We'll need high-quality data in the future to build our AI models. Nobody can escape this change.

Gavin Allen: Finally, what is your message to banks that don't fully embrace digital change?

KT Chen: I would say you always have to benchmark against the leading bank, the leading tech company, and cutting-edge technology, at all times. And if you are working in banking as a technology head, you better watch out for new technology and keep an eye on what is changing.

Usually, technology people in banking don't care so much about the customer. They are in the back office. But right now, I would suggest that everybody watch what is changing the world, especially the technology that is changing your customers.

> **"Usually, technology people in banking don't care so much about the customer. But now, everybody should watch what is changing the world."**

RIGHT ON THE MONEY

bKash enhances financial inclusion in Bangladesh

Bangladesh has made great progress in raising living standards and reducing poverty. In recent years, financial inclusion—the percentage of people with access to basic financial services—has risen to 50%.

Still, in a country with 169 million people, that's nearly 85 million without bank accounts.

One solution is offered by bKash, simple, affordable mobile payment service. More than a decade after its launch, bKash has accumulated more than 50 million registered users.

Bangladesh is one of the world's most densely populated countries. More than 70 percent of citizens live in rural areas, where mainstream banks don't provide services. The country's unbanked population is, for the most part, unable to obtain credit, make digital payments or deposits, or start a savings account.

Making life easier

With no access to formal banking services, people struggle with day-to-day finances like sending money to other accounts, paying bills on time, or carrying cash safely. By integrating banking and telecom services, bKash makes it possible for anyone with a feature phone to access its main services, which include deposits, withdrawals, transfers, and payments.

Raju works in the capital, Dhaka, and supports his family, who live in the countryside. In the past, it was hard for him to send money back to his village, but now he can securely send money to his wife's account on his phone using bKash. She can then pick up the cash straight away from a nearby bKash agent.

Shudeb Kumar Ghosh runs a family dairy business. Financial transactions were a lot of hassle, and sometimes he had to stop production to collect money from buyers. bKash lets him receive payments for goods within a few hours on his phone.

> "bKash has accumulated more than 50 million registered users."

> bKash lets anyone with a phone make deposits, withdrawals, and other payments.

Scan QR code to watch the full interview

A team effort

bKash has increased its collaboration with banks and international remittance companies, signing cooperation agreements with financial entities including Sonali Bank, Bangladesh's largest state-owned commercial bank. It is also working with 13 other banks, using their nationwide networks to provide receipts, payments, and other services to bKash distributors.

bKash is partnering with others to build up a payments ecosystem. Merchants on its network provide payment services for users in shops, medical facilities, and universities. By sharing benefits with its distributors, operators, and other partners, bKash has stimulated significant growth for the service.

A trusted brand

bKash's bright pink signage is eye-catching and easily identifiable amid the lush green backdrop of Bangladesh's rural areas. The company's advertising billboards also often occupy prominent locations in towns and cities and promote the value of the service through customer stories. In Bangladesh, everyone knows bKash, whether or not they've used its service.

bKash frequently teams up with merchants to run promotional campaigns, especially during the holidays. Its real-time cash back service uses Huawei's Mobile Money platform, which gives users a slight rebate when using bKash to pay selected merchants.

Ultimately, bKash is not content to remain a money transfer tool but wants to turn the brand into a lifestyle product. Its next step is to focus on developing a user-oriented app and providing financial services that connect to banks. As bKash's platform-side strategic partner, Huawei will assist the company to achieve this vision.

bKash's CEO, Kamal Quadir, believes the Huawei solution is well designed, helping bKash tailor its services to the needs of different customers.

"A customer may say, 'I want to use this platform to deposit money in my bank account, buy insurance, or something else'," says Quadir. "That's the main reason we're working with Huawei."

bKash's vision for the future is to provide financial services for low-income areas not covered by conventional services and thus cover more people in Bangladesh. It's now a trusted brand whose success comes down to easily accessible, secure banking services.

> bKash's vision for the future is to provide financial services for low-income areas.

CONNECTING RURAL NIGERIANS TO FINANCIAL SERVICES

In May 2020, a small shop on the outskirts of Lagos, Nigeria, put up some posters advertising a new product. The ads described a mobile wallet that allowed users to access banking services through their smartphones.

Within minutes, customers were inquiring about the offer.

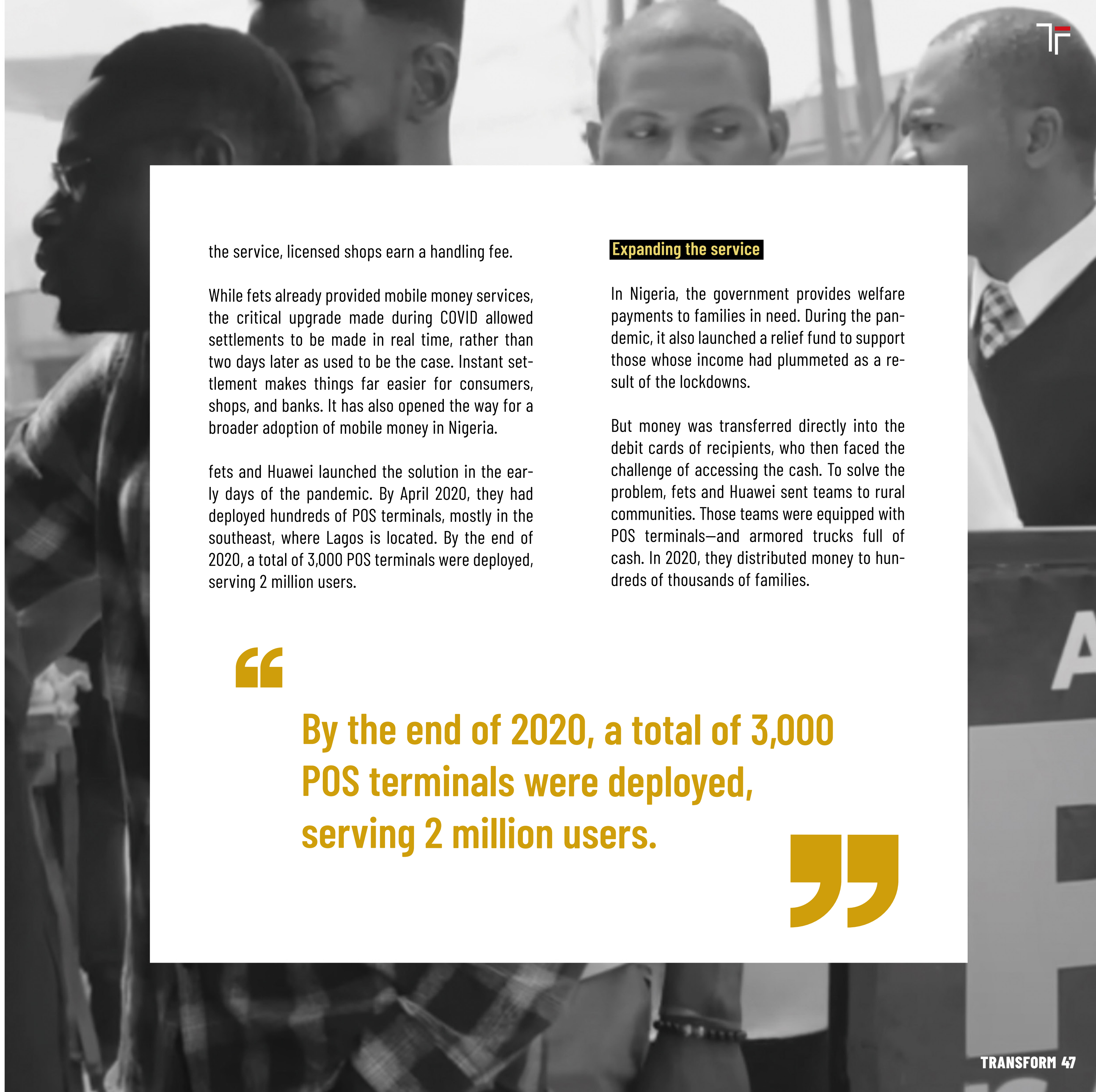
More than half of adults in Africa's most populous country have a bank debit card. But there are few ATMs, so getting cash can be time-consuming.

During the lockdowns and bank closures imposed during COVID, getting cash became nearly impossible.

In response, Huawei worked with fets, Nigeria's top supplier of mobile money services. (fets stands for Funds and Electronic Transfer Solutions.)

Drawing from Huawei's experience with mobile money in China, fets developed a solution tailored to the needs of Nigerians. Although it hasn't changed the country's cash-based economy, it's made withdrawing money much easier.

The solution lets cardholders withdraw cash not just from ATMs but also from designated agents in shops equipped with point-of-sale (POS) terminals. By scanning a code with their phones, users can withdraw cash from their bank accounts. In return for the service, licensed shops earn a handling fee.



While fets already provided mobile money services, the critical upgrade made during COVID allowed settlements to be made in real time, rather than two days later as used to be the case. Instant settlement makes things far easier for consumers, shops, and banks. It has also opened the way for a broader adoption of mobile money in Nigeria.

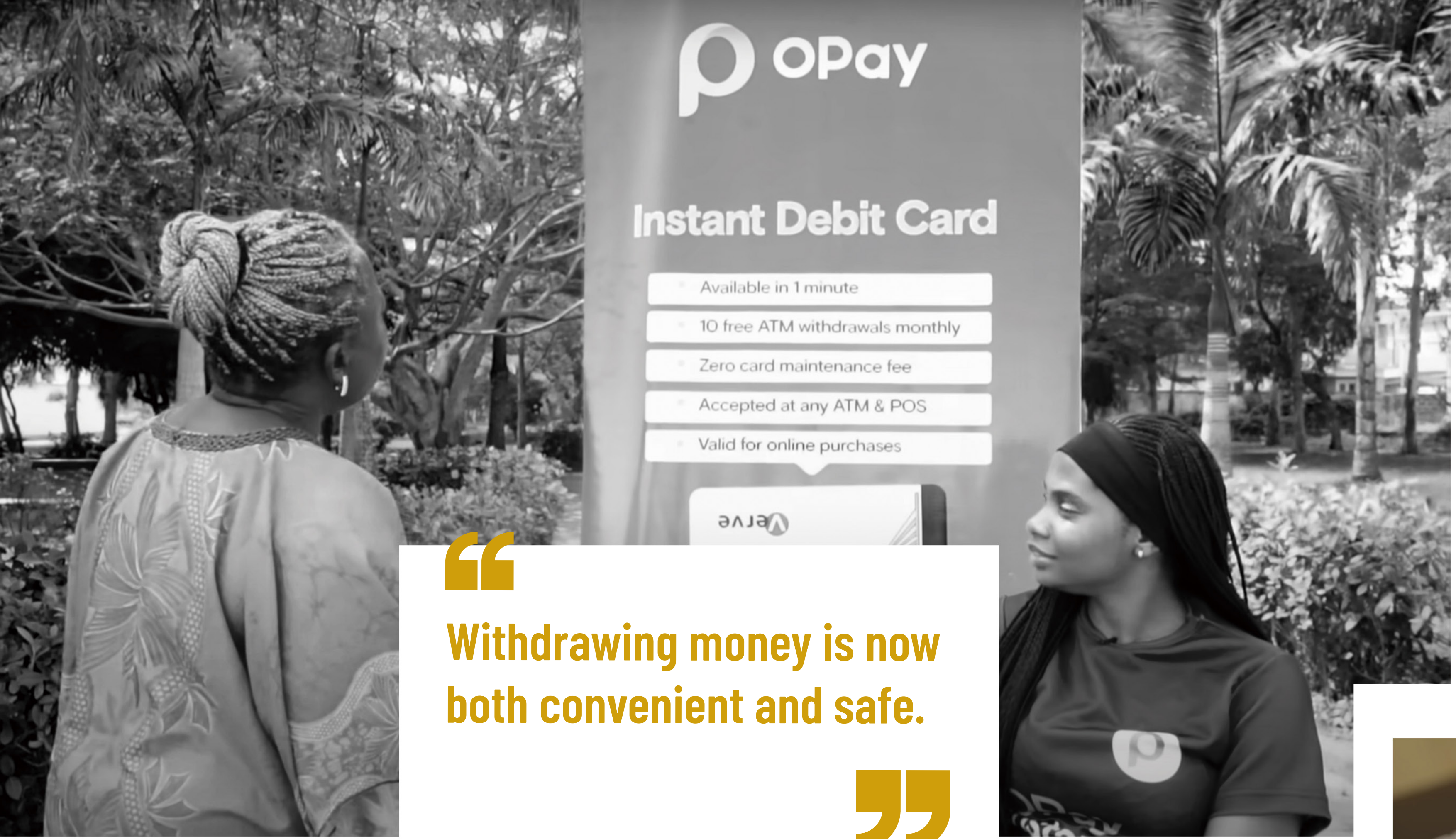
fets and Huawei launched the solution in the early days of the pandemic. By April 2020, they had deployed hundreds of POS terminals, mostly in the southeast, where Lagos is located. By the end of 2020, a total of 3,000 POS terminals were deployed, serving 2 million users.

Expanding the service

In Nigeria, the government provides welfare payments to families in need. During the pandemic, it also launched a relief fund to support those whose income had plummeted as a result of the lockdowns.

But money was transferred directly into the debit cards of recipients, who then faced the challenge of accessing the cash. To solve the problem, fets and Huawei sent teams to rural communities. Those teams were equipped with POS terminals—and armored trucks full of cash. In 2020, they distributed money to hundreds of thousands of families.

> "By the end of 2020, a total of 3,000 POS terminals were deployed, serving 2 million users."



> Withdrawing money is now both convenient and safe.

COVID cash distribution

The fets system has changed the lives of many Nigerians.

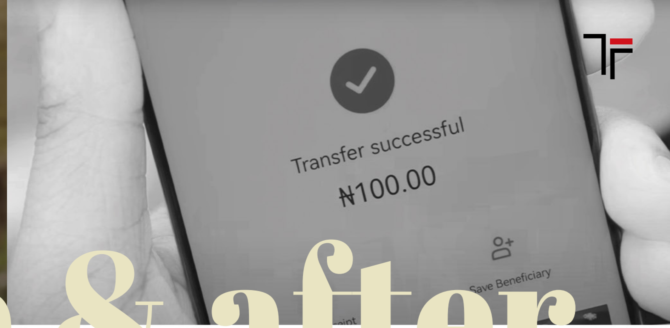
Olaide, who lives in the state of Kano in the north, used to travel 10 kilometers to withdraw money sent by her husband, who was working in Lagos. In addition to being inconvenient, carrying large amounts of cash was unsafe.

Not anymore. "The fets agent is right in our village, so withdrawing money is now both convenient and safe," says Olaide.

Meanwhile, the terminal franchisees are also satisfied. "We not only earn decent agent fees, but as more people come visit us to withdraw money, our business grows," says Yusuf, a fets service provider. "Our shop now earns twice as much as before."

One of the lasting effects of the pandemic in Nigeria will be positive. Not only is it far easier to withdraw cash than it used to be, but more financial transactions are becoming cashless as well.

In the future, utilities and cable TV providers will accept mobile payments, which will be a big change for Nigerian households. Learn more by watching this video.



before & after

> Our shop now earns twice as much as before.

Scan QR code to
watch the video on YouTube

BRINGING FINANCIAL POWER TO THAILAND'S UNBANKED POPULATION

How Siam Commercial Bank used tech to instantly attract 45,000 new customers and boost its business by 58%

Thailand is undergoing a demographic change. In 2023, millennials make up a large block of the country's key consumers. They behave quite differently from older generations, and as consumers, they have their own distinct preferences.

For example, younger Thais are less loyal to traditional banking services. Research by McKinsey suggests that millennials are "willing to switch banks and try new financial services, particularly if they feel they can get a superior digital experience elsewhere." The firm estimates that 26% of Thai consumers switched banks between 2020 and 2021.

> 26% of Thai consumers switched banks between 2020 and 2021.

A financially inclusive Thailand

Over the past few years, Thailand has made significant progress toward greater financial inclusion. It launched PromptPay, a real-time payment platform, and encouraged FinTech companies to develop innovative loan services.

Even so, half of the population remains unbanked with no access to financial products, while 18% are underbanked, lacking access to anything other than a bank account.

Thailand's second-largest commercial bank, Siam Commercial Bank (SCB), provides customers with a full suite of financial services. In 2021, SCB began transforming its business model by incorporating digital technology, leveraging the advantages of cloud computing to build a core digital banking system. That year, the bank's transactions increased by 58%. Roughly 84% of its activities were digitalized, while 70% of its transaction volume took place online. This rapid progress was enabled by the incorporation of several technological solutions.

In traditional brick-and-mortar banking, a loan seeker would bring their application to a bank teller for review, a paper-based process that could take days or even weeks. It was complex, expensive for the bank, and inconvenient for customers, especially those living in remote areas. Moreover, the slow service and lack of personalized marketing made it hard for SCB to attract millennial customers.

To make loan origination more efficient, SCB adopted a cloud-based solution that allowed the bank to digitalize many of its loan services. Now, customers can simply click a few buttons, upload supporting documents, and receive a quick response to their loan application. It's more convenient for customers and requires fewer bank resource. Moreover, it allows SCB to tap into a large market of small loans.

Huawei has operated in Thailand for more than 20 years, and SCB chose the company to deploy its new digital banking solutions. Within three months, the digital loan service attracted 45,000 new customers.

SCB and Huawei have successfully deployed innovations that make financial services more convenient and give more people in Thailand access to the benefits of digital banking. SCB's vision is to become the digital banking choice for half of Thailand's population and the most comprehensive bank in the country overall. Huawei looks forward to supporting SCB in achieving that ambitious goal.

> Within three months, SCB's digital loan service attracted 45,000 new customers.

IN THE NEXT ISSUE,
WE LOOK AT THE SUBJECT OF SUSTAINABLE TRANSITION.

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