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Legacy Banking Needs to Change Its Tune

Interview of Sudipta Kumar Ghosh

BY KATHRYN ATKINS
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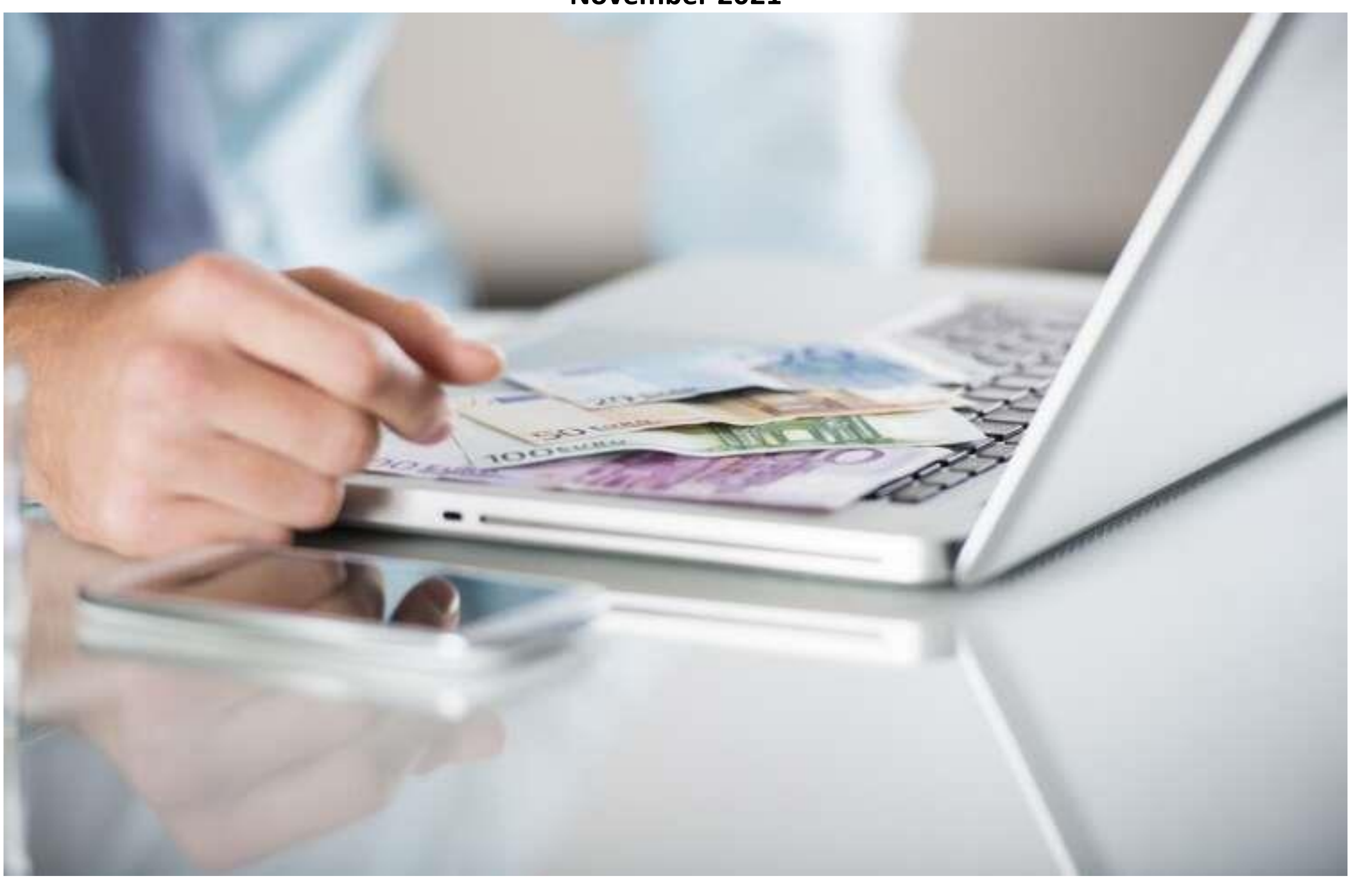

Sudipta Kumar Ghosh is an experienced technology and product executive in banking and financial services who focuses on implementing solutions aligned with digital and mobile-first growth strategies to deliver exceptional customer experiences. During his twelve years of involvement in this sector, he has leveraged APIs, Microservices, Cloud, Agile, and DevOps to build next-generation banking. Mr. Ghosh has an MBA from the Kellogg School of Management and is currently a director of software engineering at Capital One.

In his most recent few years of working in the industry—and leading several complex digital and Cloud transformation initiatives—he has developed serious concerns about the future of traditional banking, the primary one being the legacy banks' ability to compete with Fintechs. He believes traditional banks need to undergo substantial digital and Cloud transformations to survive. We caught up with him to learn how banks arrived in this situation and hear his ideas for averting this outcome.

K. ATKINS

I understand that you have significant experience in leading technology transformation efforts for banks. Can you tell us a little about the legacy banking system and how that is different from Fintech?

S.K. GHOSH

Fintechs are those companies that use technology in innovative and customer-friendly ways. In many cases, they are seen as a threat to the financial services industry because they better understand what customers want in their banking experiences. When I say Fintech companies, I mean those like Venmo, PayPal, Quicken Loans, etc. In comparison, it's evident that banks are still relying on existing, outdated technology infrastructure and customer experiences, hence losing market share to Fintech.

K. ATKINS

In what ways do legacy banks misunderstand or misinterpret what their customers want and expect?

S.K. GHOSH

Banks have had their customers for years, and many of their clients are still doing business with walk-in banks. They even put up with drive-through banking for a while because it was still "their local bank." Then, bank regulations made it so competitors could quickly enter the financial services market. New ways of banking were made available to these same customers, not just in the United States but everywhere. The European Payment Services Directive (PSD2) makes it easy for customers to decide how they want to fulfill their banking needs and lets them put all their banking data in one place. Plus, other regulation technology tools (abbreviated as RegTech) are making it easier for new competitors in the financial services industry to enter the market. RegTech uses Big Data, A.I., and blockchain to increase regulatory compliance, reduce financial risk, and eradicate laundering and fraud. Bottom line, customers have better ways to pay for their products and services, borrow money, pay each other, and pay their bills than using a bank. Banks haven't caught up.

K. ATKINS

But aren't banks offering more services like mobile access, for instance?

S.K. GHOSH

Yes, but that's just one feature of what Fintechs like say, Apple Pay, is offering. It seems that many banks are simply saying "me-to," thinking that they're keeping up when they don't understand the bigger picture. As a case in point for Apple Pay, Apple's business model is not limited to Apple Pay by itself but exists within an ecosystem that today's banks haven't internalized. Apple iPhones, watches, computers, iPads, and more create a comfortable (especially for Apple fans) yet exciting and trusted brand-sphere for its users. Banks have a strong foundation of customers from years of being in that industry and were protected by government regulations. But government regulations are changing, and customers have many different expectations.

K. ATKINS
That's steep competition. But can't the banks change? They're big companies with lots of resources.

S.K. GHOSH
Yes, they can. In fact, banks will have to if they want to survive. But if they resort to competing on one feature at a time, they will lose the chance to recreate an industry they once dominated.

K. ATKINS
What is their biggest reason for not changing?

S.K. GHOSH
In addition to not understanding today's customers' needs, a huge problem is the existing infrastructure underpinning most banks today.

K. ATKINS
So, what is "infrastructure" as it relates to banks? And what are its problems or weaknesses for legacy banks?

S.K. GHOSH
Great questions. Traditionally based financial services or banks have been slow to react to Fintech disruption because they are heavily dependent on infrastructure and legacy platforms. By infrastructure, I mean the actual huge black computers that we think of from the movies, which are called "mainframes." The data they use to conduct the millions of financial transactions are stored in physical (outdated) data centers that they own. These platforms and infrastructures cannot support the latest digital products, services, and applications that banks need to offer to compete with Fintechs. Other downsides of legacy infrastructure are a slow time to market, increasing maintenance costs over time, and the use of ancient tools and analytical packages.

Furthermore, schools no longer teach "old tech" machine languages like Cobol and Fortran, considered dead languages like Latin or Greek. Current languages would be things like Java, Python, and Go. And banks need to recruit newly educated engineers, but they must also train existing employees to help them skill up.

K. ATKINS
What is the alternative, then?

S.K. GHOSH
The simple answer is that financial services companies, and others that want to compete in the marketplace today, need to embark on a complete digital and Cloud transformation initiative. That means moving their data from these legacy applications in their physical data centers to the "Cloud"

and rewriting the customer experience using digital-first technologies. Storage in the Cloud is less expensive for one, but also, the cost of maintaining the mainframes over time is pretty high. A Q4 2019 Cornerstone Advisors survey of 300 community-based financial institutions showed that 45 percent of banks had not yet launched a digital transformation strategy.

K. ATKINS

It seems pretty straightforward. Why are traditional financial institutions reluctant to Digital or Cloud transformation?

S.K. GHOSH

Any technology transformation will carry huge initial costs. Along with the project investments, the right talent needs to be hired. Once in the Cloud, as I said, the cost to maintain it is much less expensive. However, a bank's executive team may be reluctant to make this investment if they don't understand all the benefits of migrating to Digital or Cloud. But before that, the riskiness derives from not having a clear migration strategy in place.

Further fears come from anticipating cost overruns, not to mention the significant disruption of the day-to-day business. While these are valid concerns, banking executives and their teams should be asking if the company's platforms and legacy infrastructure can survive the pressure from Fintechs' customer expectations, innovations, and the banking industry's own regulatory pressures. If they don't question themselves, their shareholders surely will.

K. ATKINS

Well, what would be some steps for banks to move to the Cloud?

S.K. GHOSH

Moving to the Cloud is not a magic bullet by itself. Financial institutions serious about making this transformation have more work to do, starting with the following steps. First, they need to identify and choose their Cloud Service Provider(s) for capabilities to be hosted on the Cloud. Google Cloud, Microsoft Azure, and AWS are some key players in this market. When choosing a provider, it is especially important for banks to make sure the provider's cybersecurity requirements are aligned with the bank's overall security strategy and their customers' expectations.

Second, they need to decide what capabilities and in what order they need to migrate to the Cloud. Ideally, the first wave of competencies should be the customer-facing applications and the heavy analytical tasks. These use-cases need robust storage or computing powers that should scale up or down on demand. That type of scalability is one of the biggest benefits of working in the Cloud.

Third, banks (anyone looking to make a digital transformation, actually) need to define a "governance" model. And it's the key to their success. The governance model defines what technology/Cloud capabilities are approved for usage and what access to controls engineers should have. It would also be a part of alerting and monitoring infrastructure and costs, training developers on controls mandating how the infrastructure is provisioned, etc. Without a vigorous governance model, banks will struggle to maintain a standardized and uniform operating standard across the organization.

K. ATKINS
Any other considerations? Are there ways to control Cloud costs? If so, how is that done?

S.K. GHOSH
Monitoring and optimizing costs are critical parts of successful Cloud migration efforts. It's almost counterintuitive. It's less expensive over the long term to store data than in a physical data center. Still, because the Cloud has an unlimited capacity and computing power, costs can quickly get out of control if the usage is not monitored. All Cloud service providers have cost monitoring tools; however, these tools may not help an organization identify where the bleeding is happening. Training the developers on various Cloud infrastructure best practices and a robust governance model will help keep costs under control.

K. ATKINS
Can you tell us specifically what will keep costs under control?

S.K. GHOSH
I have four suggestions. 1) Using the right instance size for your applications, 2) Using the server less whenever possible, 3) Choosing the right pricing model, and 4) Turning off non-production instances after work hours—and again, having the teams working together on adhering to those goals.

K. ATKINS
Those are helpful. Is there anything else you'd like to share about digital and Cloud transformations?

S.K. GHOSH
Yes. Digital transformation and customer focus are not once-and-done efforts, unfortunately. They require an unwavering commitment toward creating a culture of innovation and continuous learning. Successful digital organizations build microservices that link with easy-to-configure APIs that are hosted in the Cloud. This makes it less difficult to replace the code if upgrades need to be done quickly.

The most effective digital organizations use DevOps principles coupled with heavily automated deployment and testing methods. They focus on enabling high reusability, faster development time, the use of CICD (Continuous Integration, Continuous Delivery), and an underlying control on infrastructure provisions. Another way banks are trying to catch up is by outsourcing the talent (engineers and data scientists) to help in the transition. We don't recommend it. While a known talent gap is challenging CIOs, it's also true that outsourced vendors' employees often do not develop any appreciation for the company's strategic needs—a requirement for the long haul and dedication required of this type of internal transition.

K. ATKINS
It certainly sounds like legacy banks have their work cut out for them. But you have laid out some excellent paths for their success. Thank you for your time, Kumar.

S.K. GHOSH

Thank you for providing me an opportunity to share my insights with the readers of The Journal of Digital Transformation.

About the Author:
Kathryn Atkins is a freelance business writer and published author working out of Southern California. She has an MBA from UC Berkeley and plays the piano. She writes pieces about technology for the National Business Post and covers topics including Agile methodology, asset and safety management, diversity, Fintech, banking, supply chain, and more. She can be reached at kathryn@kathrynatkins.com. Her work appears in these outlets: LinkedIn | Biz & Life Trends |kathrynatkins.com| Thrive Global | Huffington Post | Amazon |