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Artificial intelligence, voice recognition, augmented reality & co.: technology boosts for customer-focused banking

An overview of trends and highlights from Europe's biggest fintech conference



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The technological advances and social changes that are reshaping our work and private lives are also impacting how people spend, transfer, save and invest their money. At the Money 20/20 Europe conference held in Copenhagen at the end of June, some 4,000 experts from banks, payment incumbents and fintech start-ups shared insights on the specific trends and technologies that are transforming the banking experience for customers. The spread of artificial intelligence, the rise of voice-based digital offerings for interacting with customers, and the growing importance of open platforms for the future

of (digital) banking all figured prominently in Copenhagen. These and other trends are helping to make banking ever more personalized, as well as more flexible, transparent and secure.

New tech: necessary, but insufficient

New technology on its own will not turn the customer relationship into a love story. "Customers buy experiences, not application programming interfaces," in the words of the digital agency R/GA. However, technology and the smart use of customer information and banking habits make it possible to have "conversations" that are both personalized and relevant for the customer, promote a sense of immediacy, and increase the level of engagement. With 60 billion messages being sent each day via Whatsapp and Facebook, banks also need to make sure that they are well-placed to pursue those conversations where they are actually taking place.

Meeting that challenge is made harder by the fact that many banks are hampered by legacy IT systems. In his panel on Bank (R) evolution, Clearbank CEO Nick Ogden warned that kids aged 14 to 16 will have expectations that simply cannot be met by the old core systems that run today's banks. For example, the US banking sector is facing a "burning platform" problem due to the fact that 43% of its core banking systems is written in COBOL, a programming language launched in the 1950's. Banks are confronted with the prospect of spending billions on incremental improvements to their legacy systems, and that's a tough choice to for them to make, as Disruptive Group CEO Huy Nguyen Trieu pointed out.

The coming age of air

One clear message from Copenhagen: artificial intelligence (AI) will play a pivotal role in the future of the banking and payments sectors. Pedro Bizzaro from fraud prevention firm Feedzai summed it up nicely: "AI is the electricity, not oil. It will run in the background and we won't think about it." Danny Lange, who previously spearheaded machine learning at Amazon and Uber, took a similar stance, claiming that "AI is clearly eating up the world" and that machine learning ensures that both the chosen and ignored proposals made to individual customers are applied to perfect firms' understanding of those customers and their interactions with them. AI



also contributes to meeting regulatory compliance and providing greater banking security, with MasterCard's Mark Barnett pointing out its ability to help identify and target the cybercrime practice of money muling as an example.

Panelists and participants at Money 20/20 Europe also widely agreed that the "age of air" (marked by hands-free and voice-controlled interactions) will soon take the spotlight from the current "age of glass", with its focus on screens, whether on desktops, on laps or in hands. Voice is set to become the most decisive form factor for online purchases in the future and is expected to already account for some 30% of transactions by 2020. Customers are already gathering experience with voice-based AI for music and video recommendations, self-driving cars and home technology thanks to such nascent offerings as Amazon's Alexa, Apple's Siri and Samsung's Bixby. In the future, voice technology will become increasingly intelligent in its ability to reflect the specific context and the individual user, including through an assessment of the voice's emotional state ("artificial emotional intelligence"). The coming age of air is also likely to further strengthen the key role that mobile-based products and services already play in the banking sector.

The eyes have it

Another emergent trend in Copenhagen: Biometrics as the cornerstone of strong authentication. While digital fingerprint scanners are currently the frontrunners in this space, the pipeline is full of solutions involving facial and voice recognition or iris scans. Such biometrics solutions are the cornerstone of strong authentication, which is needed for seamless and quick transactions. Across the payments industry, there is a push to make the authentication process ever more invisible, with the ultimate aim of making it possible to "check-out just by showing up," as Gemalto's CEO Philippe Vallée put it in his keynote.

Augmented Reality (AR) also figured prominently at Money 20/20 Europe, with industry leaders praising its ability to give customers useful information in an easily actionable manner. Virtual Reality (VR) was also touted as a means of providing customers with an additional layer of engagement that promises to be exceptionally immersive. However, even its keenest advocates admit that fintech-related VR remains in its infancy and is hampered by the absence of clear norms or standardized hardware.

Speakers in Copenhagen were also rather skeptical about the retail applicability of blockchain, with MasterCard's Barnett saying that he was struggling to see from a customer perspective exactly what problem it should be the solution to. With 85% of the world's transactions continuing to take place in cash, it is hard to view blockchain as a key payments priority, Barnett added. In his keynote, Samsung SDS's Won Pyo Hong pointed out that blockchain is too slow its current state -- with clearance often measured in minutes, not milliseconds – and that those industries that it has the best potential to disrupt also happen to be ones that are highly regulated. However, Dr. Hong also stressed blockchain's potential to develop and its applicability for process automation in such documentation-focused spheres as the health sector or digital logistics.

Two givens: regulations and demographics

With its potential to fundamentally change the playing field for the payments industry in Europe, the Payment Services Directive (PSD2) was naturally a key topic of discussion -- and debate -- in Copenhagen. Nearly 9 in 10 of the participants in an audience poll in one PSD2 panel said that the Directive has actually created more questions than it has answered. That assessment reflects the fact that the exact terms for PSD2's implementation remain up in the air, with banks and fintechs often taking very differing stances on such topics



as "screen scraping." There was much more agreement in Copenhagen on the overall importance of open platforms and their potential to change the banking industry, a point both Square CEO (and Twitter co-founder) Jack Dorsey and BBVA's CEO Carlos Torres Vila made in their keynotes.

Just as regulatory changes will continue to shape the landscape for payments and banking, so too will broader demographic developments. Several Money 20/20 Europe speakers focused on how the global shift from ownership to experience is shaping how they conceive, develop and offer products and services. Speakers also agreed that the sharing economy is here to stay and is no longer purely a millennial thing. The finding that 71% of those millennials actually prefer going to the dentist to visiting their bank was probably the single most repeated statistic at the conference. This insight, coupled with the similarly cited Sam Walton adage that "there's only one boss: the customer", underlined the widespread appreciation among the conference's participants that the financial services sector still needs to do more to provide what customers want: greater ease, clarity, transparency, and flexibility when browsing, selecting and using financial products and services to address their very individual banking needs. Money 20/20 Europe made clear the banking and fintech industries are on the right path to meeting those expectations.

What does all this mean for us at Erste?

Like the banking industry as a whole, we at Erste Group are also experiencing the changes in customer behavior and the impact that new technologies are having. For this reason, we have put customer experience at the very centre of our Group Retail Strategy in order to ensure that we are relevant for customers, both now and in the future too. One big driver of customer experiences lies in addressing the individual customer and their unique interests and needs by turning customer data into highly-tailored and, therefore, relevant products and services for them. That is one reason why we are focusing on further improving our CRM capabilities. In order to drive innovation forward, Erste Group also has a clear view of when and how to cooperate with fintechs and other tech companies. Artificial Intelligence is one innovation that takes an especially prominent spot in our agenda for 2017. Some of our group's banks are already running first AI pilots together with IBM's Watson. Thanks to George, we are also well-positioned for the continued "platformication" that PSD2's implementation will encourage. Taking all this into account, Erste Group is doing a good job in preparing it self for the future of banking.