THE BEST OF

FinTech PULSE

Thought leadership highlights | 2018

ARTIFICIAL INTELLIGENCE

The New Electricity?

10 BOOKS EVERY FINTECH PROFESSIONAL SHOULD READ IN 2018

TOP 10 MOBILE BANKING TRENDS TO WATCH

STRANDS

The Best of FinTech Pulse

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STRANDS

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2018

Given the scope of the advances in the FinTech and banking spaces during 2018, at Strands we make it our business not only to be informed, but also to inform our readers of the latest trends and technologies, providing insights into how banks can offer the best possible solutions to their customers.

This Christmas, we bring you the best, and most-read, of our blog posts from this year.

We also come bearing gifts of engagement, customization and insight for banks and their customers alike. Find out more, inside!

CONTENTS

EDITOR'S NOTE

The year of the SME, and the first of many. But not just the SME. Strands develops solutions to allow people to connect with products, help banks engage with existing customers whilst attracting new ones, and reach underserved segments thanks to new advances in AI and ML technology. Now, banks can reach all their customers in the way they best understand it, something that is especially crucial for SMEs, who have more options open to them then ever before. We've been talking lots about how to narrow the divide between bank and business this year - it IS possible to understand the customer better and speak their language, helping them first, then reaping the rewards.

We hope you enjoy re-reading a few of our favorites from 2018.

Enjoy!

STRANDS

ARTIFICIAL INTELLIGENCE:
THE NEW ELECTRICITY?

When electricity was invented more than a hundred years ago, it revolutionized society; suddenly people had the exciting, yet challenging task of adapting to a new technology, and a new way of living. Industry was transformed, life was revamped and everything seemed newly possible.

Today AI puts us in a very similar position. Just as it is very difficult to imagine households, communications, healthcare and practically every domain of our life without electricity nowadays, in recent years AI has advanced to a point where we can see change of a similar magnitude happening in the not-so-distant future. A change set to refashion industry yet again and mark a turning point in history.

AI is the theory and development of computer systems able to perform tasks previously thought to require human intelligence. Broken down, this is a software consisting of a family of algorithms which helps our machines to learn. Machine Learning (ML) is the procedure of providing our machines with large amounts of data and letting them learn by themselves, inspired by the way that we, humans, learn. ML algorithms repeatedly process available data, so that they can make accurate predictions or classifications.

We are all becoming increasingly familiar with lucrative applications of AI such as speech recognition, machine translation or even self-driving cars. Current research on AI now focuses on the next steps of these applications. For instance, AI is on course to produce well-trained models that will be able to read and understand large volumes of text. They will be able to read, summarize and answer questions accurately, reaching almost human levels of interaction and performance. Whilst these huge strides in AI will become the new normal in a relatively short time, as a consequence of these rapid advances, companies in every sector and industry are faced with the challenge to stay agile as they navigate and adapt to this modern reality.

BOTS OVER BRAIN POWER?

Traditionally every company has a development team, which receives some input data sets with the corresponding output results. The team analyzes the data, designs algorithms based on a prefixed set of rules and then tests the outcome of this model against the given outputs.

Machine Learning and Artificial Intelligence: The electricity driving banking into the future.

In the new era of ML, we create algorithms that are able to learn the rules that govern the relations between the given inputs and outputs (labels). The ML algorithms are not given any directions or constraints. They are fed with the available data and they independently develop the ability, using mathematics, to detect patterns and make the best possible approximation of input–output data mapping.

Therefore, without human aid or interference, our machines are able to handle vast amounts of data and learn how to map inputs to outputs quickly and efficiently. A basic example of how ML models work:

In a data set that contains labeled images of both lemons and apples, an ML algorithm can be trained to distinguish a picture of a lemon from that of an apple. In the process of training, we don't give the expressed instruction to the algorithm to look mainly for round, red fruits, in the case of apples. The algorithm itself realizes that shape and colour are two very important features for the classification task that it has to perform. In many tasks the performance of a trained ML model surpasses human-level performance.

AI drives incredible amounts of economic value. Almost all of the economic benefit created by AI today is through the above learning process based on input–output data. Within banking, one example would be in relation to loan approvals, an area where banks need as much information as they can get about creditworthiness before signing on the dotted line.

Machine Learning algorithms get fed with data describing client characteristics and outputs informing if these clients are able to pay their debts or not. In these cases, machines learn from financial history and become experts in evaluating new loan applications. In online advertising, ML algorithms are provided with records of consumers habits, so they easily identify customers with similar preferences and make appropriate suggestions. A prime example would be the Amazon recommendation system. This allows companies to build "intimate" relations with their customers.

For success stories using ML, two examples would be Man Group and Bank of America. Man Group Plc. built a system that evolved autonomously, finding money-making strategies humans had missed. The results were startlingly good. By 2015, Artificial Intelligence was contributing roughly half the profits of one of Man Group's biggest funds. Consumers today are becoming increasingly accustomed to the types of seamless mobile experiences provided by apps like Uber and Airbnb and want better banking experiences. To this end, Bank of America introduced Erica, the new digital assistant. Erica uses Artificial Intelligence, predictive analytics and cognitive messaging to help customers to make payments, check balances, save money and pay down debt. As systems like Erica become second nature and an intrinsic part of our lives, it won't be long before fully synchronized voice banking, payments and commerce are as commonplace as cashing a check.

Machine Learning and Artificial Intelligence: The electricity driving banking into the future

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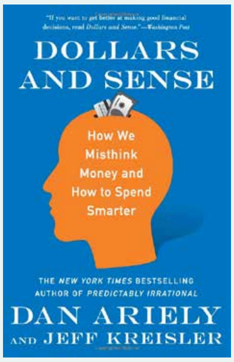
Dr. Dimitrios Vlitas
Head of Data Science at Strands

10 BOOKS
EVERY FINTECH PROFESSIONAL SHOULD READ IN 2018

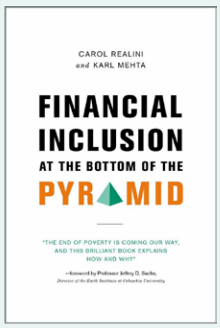


1 Dollars and Sense
by Dan Ariely and Jeff Kreisler

Is money hard to think about? When was the last time you bought something and considered the opportunity cost of that purchase? Together Ariely and Kreisler answer these questions and many more as they explain how people irrational behavior often interferes with our best intentions when it comes to managing finances. The book reveals the emotional forces working against us and how can people counteract them. Understanding those hidden motivations that are secretly driving people choices can truly help financial institutions retain an emotional connection with customers when communicating.

2 Financial Inclusion at the Bottom of the Pyramid
by Carol Realini and Karl Mehta

About 2.5 billion people are effectively excluded from financial institutions. They are so called "financial nomads", with no plans for their financial future. Consumers in emerging markets might see and understand how easy it is to send money to another person via mobile, but there's much less of an understanding about how to extend that technology in a broader way. Karl and Carol explain today's banking environment in easy terms, guiding those who are financially adrift. The authors provide a vision for a better world and a blueprint to get there!



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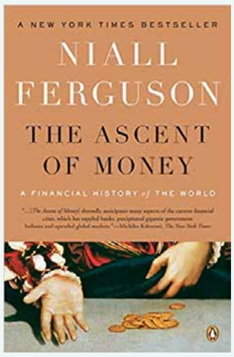
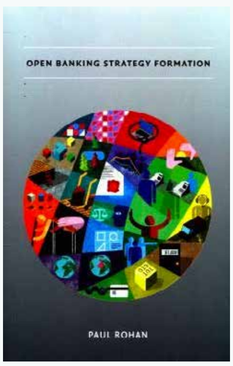
It's safe to say banking is not the same industry it was a few years ago. If you are working in a bank or any other financial institution, you will be well aware how crucial it is to stay ahead of industry trends and technology advancements. With 2018 knocking at our door, it's time to recap on our learnings and plan ahead for the things we want to achieve during the coming year.

To get your reading list started, here are 10 books that I believe every FinTech professional needs to read in order to keep growing:

4 The Ascent of Money
by Niall Ferguson

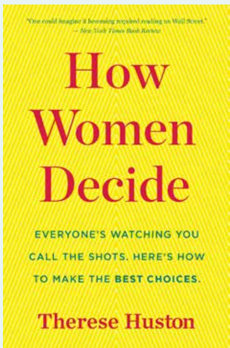


64 million years ago a meteor wiped out almost all life on earth, including most dinosaurs. In situations like this, new species will grow in the space left by the extinct ones. The financial system evolves in a similar way, through market selection. The financial system is evolutionary in nature. Niall Ferguson explains the evolution of Planet Finance, mirroring human nature and therefore is deeply irrational and unequal. Nevertheless ir provides the most efficient method for the creation and allocation of capital.



5 Open Banking Strategy Formation
by Paul Rohan

By mid-2018, banks will need to be able to show what measures they propose to take in compliance with the new open banking rules. For banks to take advantage of the opportunities that they offer, a central question must be the capacity of existing banks to adapt and evolve in this new environment. Paul Rohan explains how banks can differentiate themselves from the competition and move forward with this initiative.



6 How Women Decide

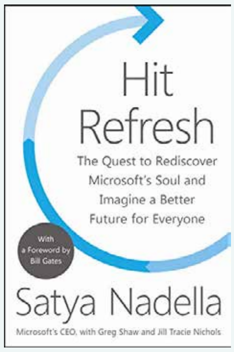
by Therese Huston

We have discovered that the vast majority of women feel detached from the world of finance, its culture and jargon, putting them at disadvantage when it comes to the control of their finances and making daily decisions with a sense of security. In short, banks do not connect with women. To understand how to provide value to customers, create and innovate, banks need to put themselves next to the client, meaning men and women. In this book, Theresa Huston discusses how men and women approach decisions differently, though not necessarily in the ways banks have been led to believe.

7 Hit Refresh by Greg Shaw,

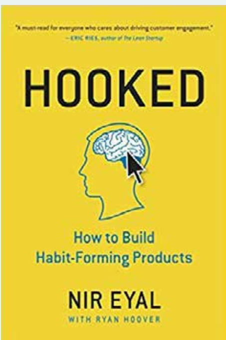
by Jill Tracie Nichols and Satya Nadella

According to Capgemini, roughly 87% of companies say digital transformation represents a major competitive opportunity, highlighting the fact that "going digital" is a top priority for everyone - especially financial firms and banks. Hit Refresh is not about digital transformation within a bank, but about the individual change - how people, organizations and societies can and must transform and "hit refresh" in their quest for continued renewal.

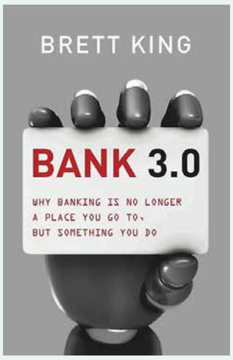


8 Hooked

by Nir Eyal



Think about all the products your customers use on everyday basis: smartphones, must-check apps, favorite websites, Fintech solutions for particular challenges. How did these products succeed in their daily routines? Every banker wants to create a successful digital banking solution that people use and rely on frequently. This book explains the psychological processes that go into forming habits and how to connect your offering to the needs of customers.



9 Bank 3.0

by Brett King

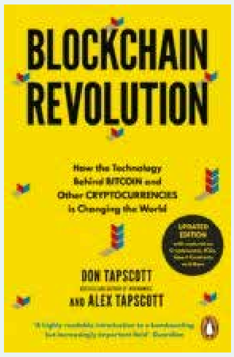
Everyone in banking business industry must read the book Bank 3.0 where Brett King shares his perspective on the future of banking and how technology is the key differentiation for the new banks. Brett discusses how consumers are less likely to view their retail banking provider as an utility provider. Bank 3.0 is about a new form of engagement and experiences that harness the power of internet without sacrificing the "human touch". It is about leveraging the potential of big data for better and more personalized interactions.

It's safe to say banking is not the same industry it was a few years ago. If you are working in a bank or any other financial institution, you will be well aware how crucial it is to stay ahead of industry trends and technology advancements.

10 Blockchain Revolution

by Don Tapscot

Blockchain is a technology that enables the direct transaction of rights and assets between two parties and eliminates the need for third parties and intermediaries. This has far-reaching implications for banks and has the potential to build a true sharing economy, where value is distributed in a fair manner. It's true that Blockchain is a banking disrupter. This book explains why blockchain technology will fundamentally change what we can achieve online, how we do it, and who can participate.



Vaida Pakulyte
Digital Marketing Manager

TOP 10 MOBILE BANKING TRENDS TO WATCH

Many forward-thinking banks and financial institutions are beginning to utilize data-driven metrics to respond to customers' needs in innovative ways. The world is changing. And banking is no exception. New innovations, technologies, regulations, and developments are continuously unfolding, and this impacts our lives, influences our decision-making and ultimately builds trends. As for mobile banking trends - they also continue to shift and mature.

SO, WHAT EXACTLY IS MOBILE BANKING?

As Wikipedia explains: "Mobile banking is the act of making financial transactions on a mobile device (cell phone, tablet, etc.). This activity can be as simple as a bank sending usage information or fraud activity to a client's cell phone or as complex as a client paying bills or sending money abroad."

The advancement of new digital tools, such as your mobile phone or tablet, give banking consumers the convenience of banking where and when they want. Because of that, mobile banking will eventually overtake all other banking channels put together.

These mobile banking users are expected to reach and surpass 2 billion by the year 2020, according to a recent report from Juniper Research.That's roughly one out of four people worldwide.

Here are more impressive stats:

A study by Citi this year showed that in the U.S., one-third of people (31%) use mobile banking more than any other app on their smartphone. Only logging onto social media (55%) and checking the weather (33%) are more common mobile activities."

Because if it rains, why walk to your nearest bank branch when you can access your account info from home and from the palm of your hand?

The growing adoption of mobile banking has been driven by many factors, but fundamentally it has to do with convenience and solving pain points.

Let's look at the top 10 trends that will continue to influence where this is all heading.

1 OPEN SESAME - INTEGRATING EXTERNAL APIS

Banks, by opening their APIs to third-party developers and companies, will prepare themselves for what is yet to come. As one banking report points out:

Despite their initial reluctance towards open APIs, banks are starting to understand their potential, with almost 70% implementing API gateways to accelerate digital banking innovation. 41% see an API gateway an enabler of the developer ecosystem, while almost 38% as a chance to open up to third parties.

This is what is truly behind and driving the new Open Banking (aka PSD2) initiative. It opens up and levels the playing field - allowing for the proliferation of new products and services to benefit the end user. When it comes to mobile banking, that means you can use a third-party app, like MoneyStrands, to see account information from all your banking providers in one place.

With so much customer data in their possession, banks are now able to leverage customer data, generate forward-looking insights and offer personalized recommendations

2 OUT WITH THE OLD, IN WITH THE NEW - REPLACING OUTDATED INFRASTRUCTURE

Believe it or not, some bank's systems are so old that there aren't many people around that understands their coding language. As a consequence, old and outdated legacy systems will be forced to integrate new technologies.

In addition, and to avoid the risking of being left behind, many banks will need to offer an easy-to-use mobile banking app that can provide a better level of transactions and services to its users.

The popularity of mobile first solutions for any industry, let alone banking, means companies can't afford to stand on the sidelines of innovation and progress.

3 WHENEVER, WHEREVER, WHATEVER - THE OMNICHANNEL BANKING STRATEGY

Omnichannel banking is about offering the same banking services to clients across all the available channels the banks has to offer, whether that be online or offline, or even both at the same time.

Therefore, receiving a frictionless omnichannel experience is something clients constantly expect from any service provider or company.

One good example of a company offering a great omnichannel experience is Starbucks. Yup, the coffee brand. Their mobile app now allows you to order on the way, pay with your phone, check your Starbucks Card balance, add money, view past purchases and transfer balances between cards as well as find stores.

As these omnichannel strategies continue to develop, mobile and digital banking platforms will keep evolving and offer exceptional services and customer-focused interactions across all touchpoint.

4 BRINGING A SMILE - MEETING CUSTOMER EXPECTATIONS

No one can deny the huge convenience and time-saving advantages of banking through your mobile phone. Among other things, it allows users to transfer money, buy cryptocurrencies, pay bills, check their deposits, on-the-go, 24-7-365.

A study by ING points out that one in five (21%) have transferred money via organisations other than their main bank in the last 12 months; 15% have done so to make peer-to-peer payments; 13% used digital banking services; and 9% borrowed money.

Thus, the proliferation and increasing popularity of "alternative" mobile platforms for banking will continue to adversely affect the main bank's branch visits, ATM use, credit card use; as customers move to use these platforms because they more user-friendly, are loaded with features, and outperform the main bank's digital products. Did I mention some even have lower transaction fees and commissions?

As such, the pressure is mounting for main banks and financial institutions to provide the necessary technology to meet or exceed their customer's expectations if they want to decrease the churn rate.

5 BIG WINS FOR SMALL BIZ - OPERATIONAL COST-EFFICIENCY

In the same fashion that users will continue to demand and expect the ability to easily pay with mobile, so too will small businesses need to prepare and benefit from that trend.

How exactly? In general, mobile banking is a cost-effective way for small businesses to manage their daily transactions and finances, as well as control their spend and budget more intelligently.

The major advantage is that rather than use the old clunky system sitting on their PCs, SMEs can now handle those same financial transactions and monitor their bank statements faster and directly from their mobile devices.

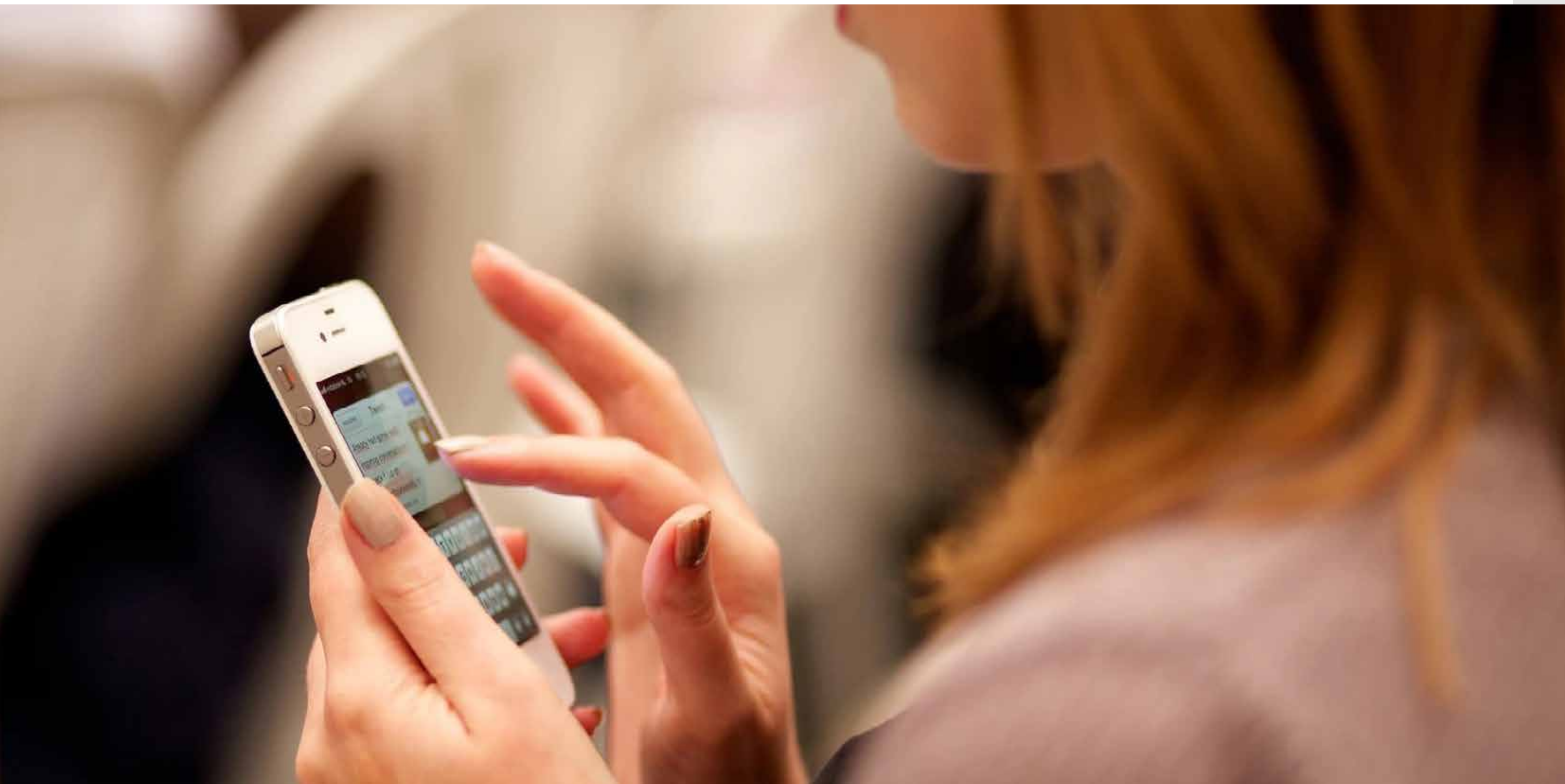
6 SAFE AND SOUND - SECURITY CONCERNS WILL SHIFT PREFERENCES

Large-scale data breaches have been a hot topic the last couple of years. However, the popularity of mobile-first solutions is on the rise as security improves and people feel safer using mobile banking features.

Starling Bank states that "mobile and online banking each bring their own risks but the additional hardware security features in mobile devices can make mobile banking more secure than its online counterpart."

This implies that security measures such as multi-factor authentication on their mobile apps provide extra layers of protection vs. banking online on a website.

Although this topic is still up for discussion, and some mobile banking apps are safer than others, nonetheless, mobile banking is becoming increasingly more secure and quelching the concerns from users about the vulnerability of their financial data.



7 ECONOMIZE OR AGONIZE - INCREASING PROFITABILITY FOR LARGE BANKS

Ever since the financial collapse of 2007-2008, banks have had to rebound and bounce back from the enormous losses many of them experienced. Mounting pressures from all sides have caused many financial institutions to explore ways to cut costs and become more efficient.

One strategy has been the reduction of commercial banking branches (as I discussed earlier) and the proliferation of mobile banking and digital banking technologies. These cost-saving measures have been happening now for many years and this trend will only continue.

Because of advancements in FinTech, between 2015 and 2025, 33% of all commercial banking branches in the U.S. will be closed - with those numbers being higher in the Euro area (45%) and in the Nordic countries (50%). These forecasted figures come straight from The World Bank and Citi Research.

8 EVERYONE IS NOT YOUR CUSTOMER - NEW DEVELOPMENTS IN MARKETING

Peter Drucker famously said: "The aim of marketing is to know and understand the customer so well the product or service fits him [or her] and sells itself."

That's a bold statement, but with data (and lots of it), anything is possible.

Many forward-thinking banks and financial institutions are beginning to utilize data-driven metrics to respond to your customers' needs in innovative ways.

With so much customer data in their possession, these institutions are now able to leverage customer data, generate forward-looking insights and offer personalized recommendations.

When it comes to inbound marketing, mobile ads are increasingly becoming an important channel for banks and financial institutions to acquire new customers. Think about it this way: most everyone has a mobile phone and uses it daily. Not everyone walks by a bank branch or watches commercials on tv.

A recent report by the Financial Brand mentions that: leading financial firms are increasingly investing in digital advertising that can support more personalized messaging. This is a trend that will continue to evolve and improve as banks will have to flex their creative muscle to reach, engage and retain their clients.

9 NEW KIDS ON THE BLOCK - THE PROLIFERATION OF NEO-BANKS

Neo-banks, also know as mobile-only banks, are pushing the boundaries of innovation, technology, and coolness. These companies seek to break away from the norm and revolutionize the way people bank on mobile phones by offering awesome user-friendly features that enhance the user experience overall. These neo-banks include the likes of Revolut, Monzo, Simple, N26, and many others.

Because neo-banks offer a mobile-first banking experience, they are extremely successful with the tech-savvy millennial demographic. At the end of the day, consumers want to carry out their financial tasks in a simple and seamless way and neo-banks are delivering on that. This explains why many of them are all growing steadily and exponentially.

10 ALL ABOARD? - THE BLOCKCHAIN CREEP

Blockchain seems to be everywhere these days. It's certainly no stranger when we look at the finance industry.

The blockchain technology, at its core, is interesting to banks because it can solve a lot of the problems that plague their processes and outdated systems.

However, many financial institutions are on the more cautious side on things and are standing on the sidelines as all this starts to play out.

That being said, blockchain's ramification will continue to disrupt the finance industry and traditional banking, as it helps build new business models that cut down costs and improve profitability.

As one article mentions, many banks and financial institutions are adopting blockchain technology to improve efficiency, cost-effectiveness, and security throughout the entire spectrum of financial services, yet it's much too early to say whether blockchain will replace aspects of banking.

Despite hundreds of banks and financial companies already using blockchain, its slow acceptance will continue for years to come. This is because each institution will need to determine the benefits of fully embracing and integrate the blockchain technology into their current infrastructures.

TOP 10
MOBILE BANKING TRENDS

CONCLUSION

Technology is moving at lightning speed and there are plenty of advantages for customers and businesses of all sizes to embrace mobile banking. It is already transforming the way people save, invest, and manage their money, and there are no signs of it slowing down. As for banks and financial institutions, continuing to develop their mobile banking technology will be a key priority going forward, as it will help them improve their competitive advantages over other banks and new entrants.

Javier Castillo
Head of Growth

BANKS & THE SME: A CASE OF ONE SIZE FITS ALL?

Approximately 97% of SMEs are micro enterprises, meaning they have fewer than 10 employees, or are sole proprietors, and/or have an overall revenue of below €2m. Whilst they fall under the SME umbrella, their needs are anything but similar and banks are best advised to provide the service their unique set of circumstances require.

Hindsight has proven to banks that retail banking products and services do not cater sufficiently well to their SME customers; not only that in fact, as now it's clear that not all subcategories of SMEs are one and the same.

Given their size and relatively low income, these companies are a prime target for banks looking to offer both financial, and even non-financial products and services. However, it stands to reason that these businesses are not looking for large-scale accounting systems, and it may be that aggregating all the 3rd-party services they need isn't necessary in the same way that it is for larger enterprises. Thus far, efforts to create in-bank business service platforms haven't culminated in great returns for the bank. So far.

Recent discussions with banks in and around Europe have shown that efforts made to offer one-stop-shop platforms haven't achieved the traction many were hoping for, as there is still little by way of understanding exactly what the freelance, micro enterprise or seedling venture are looking for from their bank. This, despite offering tools at a considerable discount, and everything at the touch of a button. What gives?

Could they benefit more from less paperwork for larger bank loans, or is it less money but way less hassle that they're after?

Do they even want a bank to offer them anything beyond what we already know and love them for? Turns out that even offering services for free doesn't do it for the smaller business, as free is synonymous with worthless in their eyes.

SOLVING THE DISCONNECT

Banking products are still a major source of finance for European SMEs but alternative financing options are growing at an increasingly rapid pace, with FinTechs offering digital lending services that bypass the red tape and numerous signatures, without the need for human interaction.

Smaller SMEs that require less funding can go straight to alternative lenders and be done in half the time.

According to Accenture, in addition to the fact that banks are not clued up about the needs of the smaller business, SMEs are in the dark when it comes to what is on offer for them too. We seem not to be speaking the same language, so what can be done about it?

Innovation is the only way forward for any kind of business in today's fast-changing market. Anyone not doing their bit to understand what to offer whom is on the back foot with little that can be done to remedy the situation. A study into the specific touch-points used by this SME segment, made easy with the implementation of machine learning technology would go a long way to understanding their processes, how they carry out their business and where their needs lie.

IT'S NOT WHERE BUT WHAT

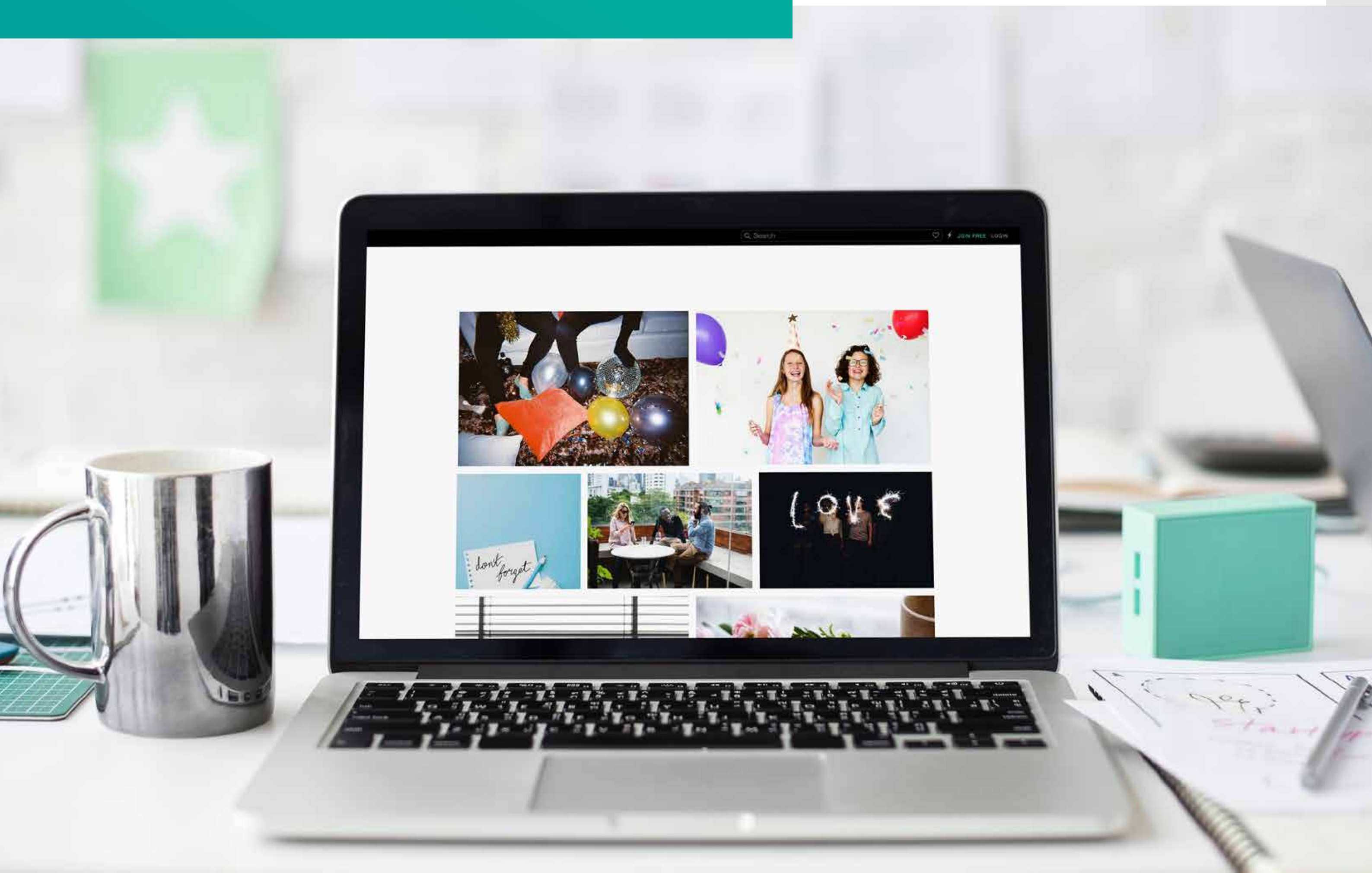
In short: banks would do well to stop thinking about what to do on their own platforms and consider capitalizing on their private goldmine; **their data, wherever** the need might be. Perhaps partnering with accounting or bookkeeping firms, offering insights and data where these businesses can use it would be a smart move. Where are they and what do they do? If they're not interested in a bank's own service, what is it that ticks the boxes for them?

If SMEs won't come to the bank, banks might need to meet them halfway.

Studies show that what works for one bank, won't work for all banks in all places - Accenture in a recent survey of European SMEs discovered that where a Spanish entrepreneur looks to the bank when they need help, an Italian seems to prefer the 'partnership' approach to money management, updates and connections with the bank, as a trusted member of their business.

Approximately 97% of SMEs are micro enterprises. Whilst they fall under the SME umbrella, their needs are anything but similar and banks should provide the services their unique set of circumstances require.

Aoife Crean
Content Manager



THE A,B,C OF
PERSONALIZED BANKING

What is it about that email addressing us personally, or the forgivably misspelled name on the side of a cup at a coffee house that makes all the difference to us? It seems that we, the average consumer, are on a constant search for the personal touch, the antidote for the anonymous and a fulfilling way of reconnecting with others.

Easier perhaps for the coffee house than an international corporation?

How can we expect a global bank of colossal proportions – the usual suspects such as BBVA, Santander, Deutsche Bank or Citi - to have a one-to-one conversation at customer level? Given that the branch is increasingly a thing of the past, surely it's becoming more difficult, as opposed to easier, to give the end-user what they want?

The Starbuck's analogy perhaps doesn't describe what happens in the banking sector by any means, but it just goes to show that a little goes a long way, when it comes to user experience. Just using someone's name shows clear intent to give customers a better service. On the same level banks, by offering a service so entirely tailor-made, personalized and aimed at better financial health, can make banking a more VIP, enjoyable experience.

The key to keeping the consumer happy is to reach them on platforms they use regularly, in a way that makes sense to them, is convenient and responds to an issue they are facing. If we're talking tens of thousands of users in any one bank, or even numbers into the millions, it's a feat to say the least.

At its core, personalization is about customer satisfaction, but for the strategist, it's the key to increasing the bank's share of wallet.

So banks, large or small, international or local, need to get on board with personalization to stay in the ring and fight their corner to give the competition a run for their money.

Necessary? undoubtedly. Possible? absolutely. As easy as A, B, C? It's a good place to start!

A IS FOR ARTIFICIAL INTELLIGENCE

Personalized banking and a better experience for all involved is possible, with a little help from AI. Artificial Intelligence does the legwork, meaning that international banks can understand the customer, nurture the relationship and - why not - wish them a happy birthday once a year to make them feel special. This is the over-the-counter chit-chat that everyone searches for – it needn't even be obvious you're talking to one of the world's banking giants.

A personal financial management tool offers financial control, foresight and wellbeing for your retail customers. Artificial Intelligence directly translates as smarter money management for the customer and improved bank-user engagement. In short, by knowing how people spend, you can assist them in doing it better.

With all their accounts in one place, insight into how they spend - or should be spending - and detailed, categorized transactions, customers are more able to plan ahead and budget, creating financial goals for the future.

All we need is data, the technology to manipulate it, and the customer is staying firmly put.

How can we expect a global bank of colossal proportions to have a one-to-one conversation at customer level? Given that the branch is increasingly a thing of the past, surely it's becoming more difficult, as opposed to easier, to give the end-user what they want?

B IS FOR BESPOKE

As Jim Marous of FinancialBrand.com so aptly put it, "people want their banking providers to know them, look out for them, and reward them no matter what channel they use or what time of the day or night it is", meaning the average customer is unlikely to entertain a banking service that doesn't tick all the boxes, all the time.

Aoife Crean
Content Manager

C IS FOR CONTEXTUAL

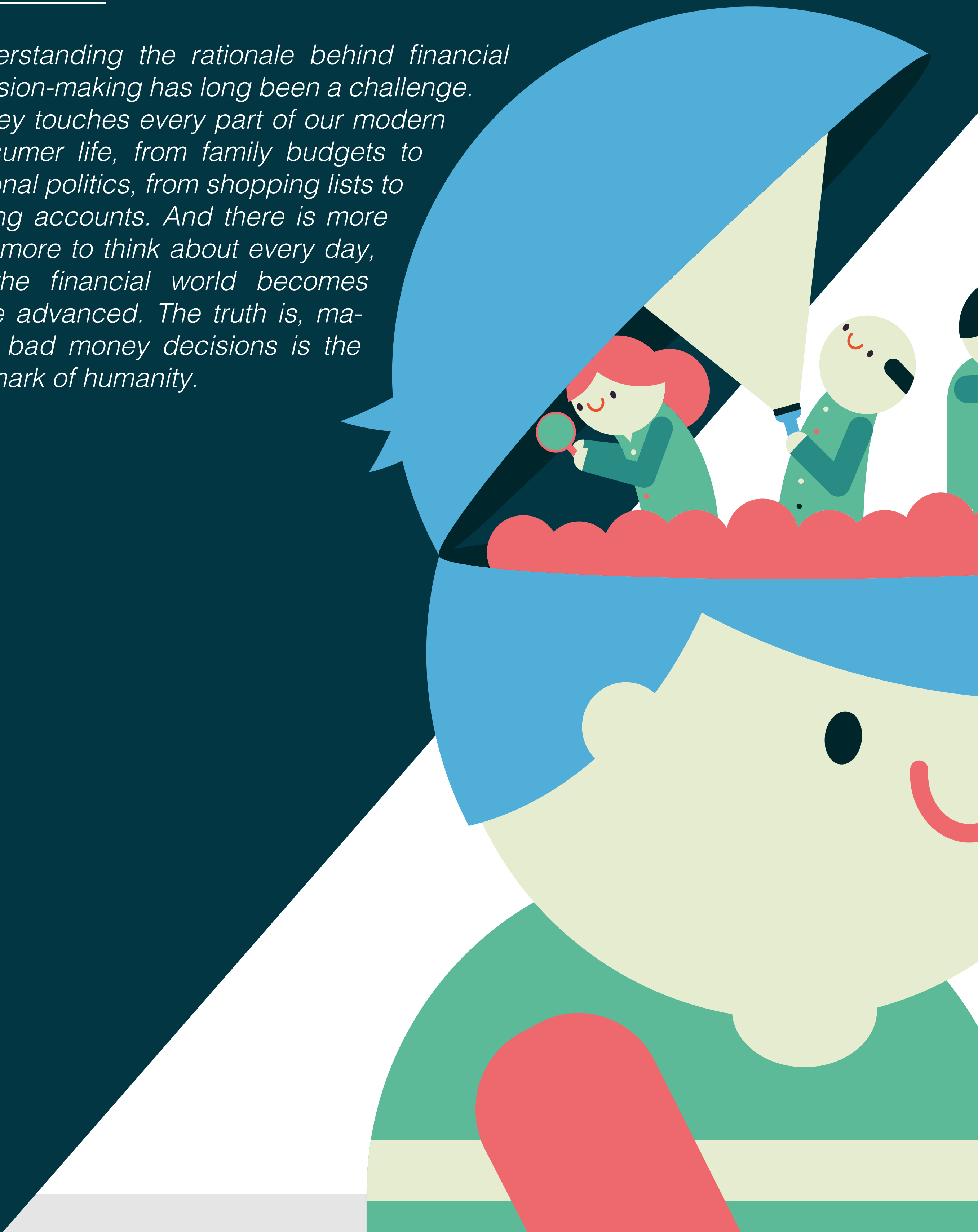
If it's not speaking to them, it won't work. The basis of contextual or relevant financial management is eliminating the element of surprise from your customers' financial future with personalized alerts, offers and recommendations.

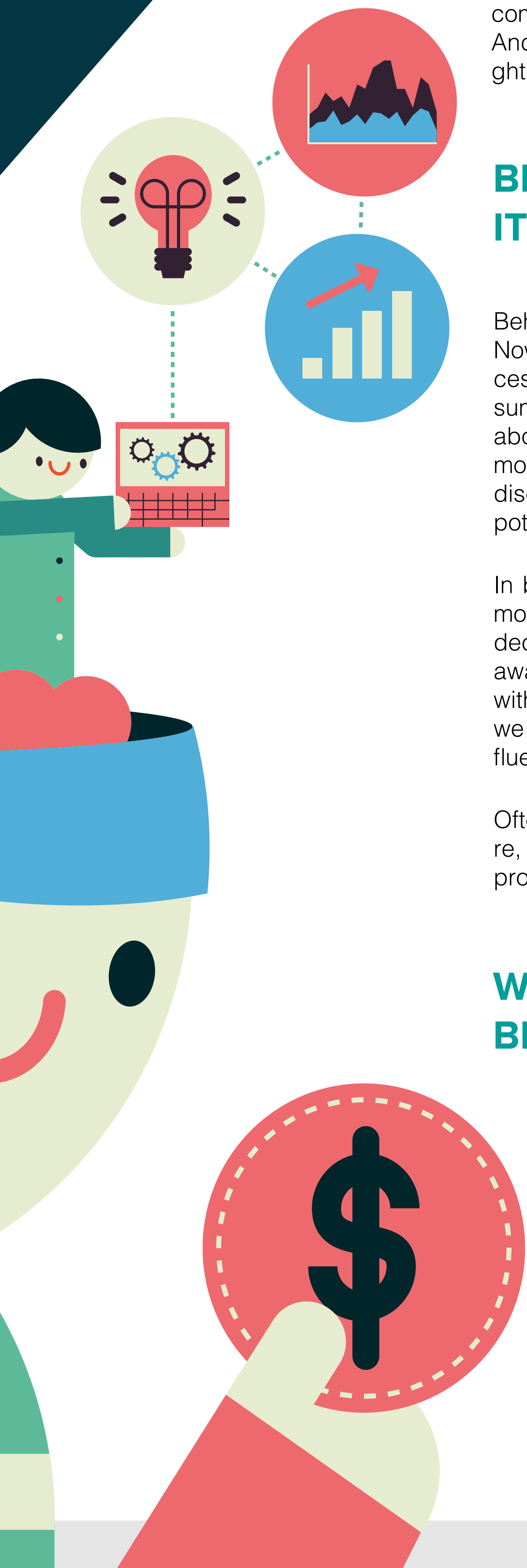
A little information about the user counts for a lot, and they'll thank you not only for making planning ahead more plain sailing than panic-stricken, but for introducing them to the best offers for them at any one time, be they bank products, or third-party solutions or products.

Personalization's not about whether a bank is large or small, with millions of customers of just a few. It's about using the data already at the bank's disposal wisely, to help improve the banking experience, making every interaction count.

BEHAVIOURAL ECONOMICS IN DIGITAL BANKING

Understanding the rationale behind financial decision-making has long been a challenge. Money touches every part of our modern consumer life, from family budgets to national politics, from shopping lists to saving accounts. And there is more and more to think about every day, as the financial world becomes more advanced. The truth is, making bad money decisions is the hallmark of humanity.





The science behind behavioral economics confirms that people make wholly irrational decisions. In the finance world, identifying which emotions come into play when people make the financial choices they do, can help bankers and those in the finance sector to understand why, whether it's buying a house, withdrawing cash, investing money or saving for retirement.

To shed some light on the subject, we sat down to chat with the man of the moment Jeff Kreisler, a Princeton educated lawyer turned author, speaker, comedian and advocate for behavioral science. He's co-author of Dollars And Sense and Editor-in-Chief of PeopleScience.com. He shared his thoughts with us on behavioral science applied to banking.

BEHAVIORAL ECONOMICS: WHAT DOES IT MEAN IN THE CONTEXT OF BANKING?

Behavioral Economics is very important within the context of banking. Nowadays, data science is a very broadly-accepted discipline within finances, but having access to lots of data is simply not enough to influence consumer behavior. Take FitBit as an example - it acquired tons of information about daily activity at its disposal, but it did not motivate people to exercise more, because it did not incorporate the human element. When these two disciplines of data science and behavioral economics come together, the potential is massive.

In banking in particular, people have a very strong emotional reaction to money and finances. Even if they think they are making an entirely rational decision, there are always emotions involved. Therefore banks should be aware of those feelings in order to assist people in making better decisions with their money. We cannot change human nature - that's impossible, but we can change the environment which nudges human behavior and influences decisions.

Often companies design products and hope they will change human nature, but it's always the other way around. We should create digital banking products based on a deeper understanding of human behavior.

WHY SHOULD BANKS BE INTERESTED IN BEHAVIORAL ECONOMICS?

Banks have always been a trusted touchpoint for people. When people make an important decision, like buying a home for example, they have many doubts, questions and lots of missing information. Those decisions contain so many invisible emotions and internal biases - doubts, worries, excitement, confusion, fear of loss. Being a trusted partner and understanding how your customers react to these important life decisions is essential for giving good, and helpful advice.

WHAT ABOUT THE ROLE OF CHIEF BEHAVIORAL OFFICER?

“In the future, banks can have an entirely different relationship with their customer. That relationship will be based upon an understanding of who their customers really are and why they do what they really do, i.e. based upon behavioral economics.” — Jeff Kreisler

The role of Chief Behavioral Officer is key for any growing institution. It is particularly important in banking and investment arenas, because the industry is driven by numbers in its nature. However, there needs to be a person that looks at things from a bigger perspective, beyond mere numbers and data.

The Chief Behavioral Officer understands both the business concerns and the science, and is able to draw conclusions from both disciplines. Truth is there are no off-the-rack solutions for applying all the insights, financial data, inputs from multiple sources. The key is to experiment. Try things. Having someone who leads these experiments is going to be crucial - especially in traditional industries like banking.

HOW DO PEOPLE GENERALLY THINK ABOUT MONEY?

We could write a book about it, but here are just a few of the key principles how people think and about money and get it wrong:

People, in general, have a difficult time evaluating financial decisions or measuring opportunity costs. If you make a financial decision now, it impacts what you could potentially do with that same money in the future. That’s tough to think about. So the way we end up thinking about money is based on uncertainty and our inability to measure what something is worth, the assess its value. Therefore we tend to take shortcuts, and find little tricks - that consciously or subconsciously convince us that we know the value of something... Even when we don’t.

People tend to create mental accounts, just like we do within our online banking budgets- with saving, checking, retirement accounts. Sometimes we think about the money we spend on rent, on food or on bills in separate categories. In many senses it can help- budgeting is important-, but it is also irrational because all our money is the same, all part of one account, whether we spend it on food, leisure or something else. What also happens, is that we often break our mental accounting rules, like when one day we decide we want to go out with friends, we momentarily forget about our categories to justify a night out when we really shouldn’t.

Loss aversion is another important principle in financial decision making. That refers to how the pain of losing some thing is much greater than that of gaining or winning the same thing. If you lose 10 dollars, the pain you feel will only be matched if you gain 20 dollars. We get attached to things. This goes along with the endowment effect - the principle that people ascribe more value to things merely because they own them. This makes us more acutely aware of the loss - or potential loss- of our money than of similar gains, or potential gains.

Self-control: Even if we ultimately know what's right and wrong when it comes to money decisions, we are unable to act rationally because we lack the self-control to apply this knowledge. We are emotionally connected to the present moment, but not the future. This is most apparent when it comes to retirement savings, because we are not connected to our future selves.

WHAT KIND OF BEHAVIORAL DATA SHOULD BANKS OBTAIN IN ORDER TO "NUDGE" CONSUMERS TO ADOPT BETTER FINANCIAL HABITS?

Miriam Ballesteros
Head of Communications

I think it would be very good to know what mental state people are in when they make financial decisions. How do you feel when you walk into a bank, when you withdraw money, when you move money around or put money into your pension fund? What transactions cause the most stress or effect our mood the most?

Do people really understand the opportunity cost of their financial decisions or are they blagging their way through for fear of people knowing they don't?

Certainly when designing products, we can draw on all sorts of data and make infinitely more useful banking tools for our customers - it's not easy by any means, but definitely not impossible!

KNOW ME, HELP ME, MONETIZE ME

Banking is undergoing enormous change, and whilst the bricks and mortar are the same — the banking sector is a money-making business after all — nothing about the design, or the look and feel have any resemblance to the banks that have been and gone.

In a recent article by the New York Times, in which they interviewed Andrei Cherny, the founder of Aspiration, a neo-bank that has attracted nearly a million customers, Cherny said in no uncertain terms that, "In consumer banking, you have what is one of the largest industries in the United States, in terms of profits, and at the same time one of the least disrupted industries, and the most unpopular with consumers".

The indisputable 'long and short' of business, be it financial or otherwise, is to make money by any means within reach. How fruitful the business is and how easy it is to achieve real profitability will depend on the strategy you implement. Doing things in the correct order is basic, but without losing sight of the user at every stage of the journey.

This unpopularity with the consumer is part and parcel of a system that has long been outgrown by those that use it. Neo-banks such as Aspiration, Revolut, Monzo, Chime and numerous others have the benefit of youth on their side and the user's experience firmly at the center of everything they do. "Different By Design" as Aspiration so poignantly puts it, and quite right too. Times have changed, and the new kids on the block are adapting to fit.

It's the secret sauce that changes the status quo for banks. We're sharing, because quite frankly, it would be rude not to.

The "Know Me, Help Me, Monetize Me" mantra at Strands is one that has become part of our DNA and that of our customers.

MIND BEFORE MONEY MATTERS

Implemented in this order, these three steps take existing customer knowledge and convert it into direct earnings for the bank:

Firstly, Know me —understand the customer's needs and wants based on their financial data, personal circumstances and information. The bank-customer relationship has undergone considerable change, due to a reduced number of personal transactions or touchpoints, more automation and a loss of the human touch. To truly know their customer, banks must learn how to re-engage with them. Both individual and business customers benefit from the in-depth insights banks have about their money management, their spending and lifestyle, understanding their priorities and 'moments of truth' at any given time, alerting them in real time. No one solution fits every consumer, but what's clear is that the user isn't looking for a loan or credit card, they're after the answer to a problem.

Help me —helping means actively solving customers' financial headaches and preempting issues before they happen. Banks have the ability to give an increased level of financial wellbeing to customers that gives them total peace of mind. Business customers, or sole proprietors in particular are given the opportunity to put their efforts on growing their business, rather than worrying about the peaks and troughs that are commonplace in SMEs' bank accounts. Tax provisioning tools, cash flow prediction and bridge loans ahead of invoice payments are only possible with knowledge that goes beyond simple transactional data; this is more the stuff of a business partner than a bank.

AI and Machine Learning are put to work to make sure that business and retail customers alike are given the assistance they need and advice on next-best actions, when they need it most.

Monetize me —if you know your customer, you can help them, and if you help them, they will pay you for it. And what's more, they'll stick around, meaning banks stand to benefit greatly from the reduced churn rate and increased loyalty and engagement of their customers.

Forward-thinking banks are focused on ensuring their customers are happy and to that end are incorporating both financial and non-financial 3rd-party services and products to their offering. For example, any customer that risks running into a cash flow problem, could solve this issue with a line of credit from the bank. Whilst it's true that 3rd-party credit options might offer a lower amount of money for less, without the red tape, the element of choice is there, as both options are available.

If you know your customer, you can help them, and if you help them, they will pay you for it. And what's more, they'll stick around, meaning banks stand to benefit greatly from the reduced churn rate and increased loyalty and engagement of their customers.

New regulations make the banking 'hub' a possibility, meaning customers have little reason to look elsewhere for the best offers, tailored to their needs in a way banks can now do better than most, armed with lifestyle knowledge and insights.

Where a customer is spending repeatedly on computer repairs, the bank will have this information and provide access to the best deals on a new computer to solve the problem. In this case, the bank acts as a go-between, facilitating the transaction for the both 3rd-party provider and the customer, keeping everyone happy in the process.

There's something in it for everyone in the chain; bank, customer and suppliers, and the bank gets their cut, making it a lucrative business to be in the know.

All in all, banking that benefits the customer, benefits the bank. Ad infinitum.

Aoife Crean
Content Manager

OPEN BANKING WORLDWIDE: A WORLD OF OPPORTUNITY

A few months into new Open Banking legislation in Europe and the UK, we ask what the rest of the world are planning to do in that regard. ***Will they follow suit?***

A slow start by all accounts across Europe, with only a small handful of banks going 'all-in' from the onset.

With increased data security measures - GDPR - coming into force imminently, and fewer risks on face value for banks, we are likely to see things pick up speed before too long.

Have a look at what's happening around the globe!

1 EUROPEAN UNION

PSD2 went live in January 2018. The European Council passed the Revised Payment Services Directive (PSD2) in November 2015, enacting a framework for open banking APIs to develop over a multi-year period. Their implementation was more of a blanket approach, which has meant significant delays in the early stages. Only 11 EU states have transferred PSD2 into local regulation.

PSD2 legislation became effective in January 2018. The use of Strong Customer Authentication security measures will become mandatory 18 months after the entry into force of the RTS (Regulatory Technical Standards), i.e. once the RTS is published in the Official Journal of the EU, scheduled for September, 2019, allowing payment service providers, including banks, sufficient time to adapt their security systems to the increased security requirements defined in PSD2. This has also meant that many banks are delaying due to a lack of security at this stage.

- Launched in January 2018
- Blanket PSD2 adoption; slower than expected.
- Security measures not yet in place. Banks delaying as a result.

2

UNITED STATES

While European banks have been obliged by law to move into the world of open banking, U.S. banks appear to have recognized the commercial imperative and are making the shift with approval, rather than guidance, from the government. Regulators have decided that instead of imposing, to encourage innovation in financial services and observe how the market unfolds. API standards were published earlier in 2018 by the FS-ISAC that fulfil many of the the same functions as those mandated under PSD2. Banks are under no obligation to implement it but wide adoption is expected due to market pressure.

- In the U.S. attitude has been that it should be the market, and not the government, that decides how things work. That banks should be free to allow or deny access to whichever apps they like.

- For the numerous smaller banks in the U.S., which typically outsource much of their technical process, a move to open banking depends on their IT providers.

3 UNITED KINGDOM

Streets ahead of the rest of the world, The United Kingdom's Competition and Markets Authority adopted a staged approach to Open Banking to allow for a smoother and lower-risk implementation of a single API standard earlier this year. Stage 1 involved data exchange only, with payments/transactions to be added in 2019. Only a handful of banks have managed to comply with Open Banking deadlines. The challenge lies in establishing secure APIs to sustain the expected output.

- Leading the move into Open Banking worldwide
- Staged, lower-risk approach (began with data exchange only, payments to follow in 2019)
- Many banks 'missed' the deadline and have been granted extensions

4 ASIA

South Korea was the first country to launch a common API infrastructure across financial institutions back in 2016. Singapore has recently been leading the way in open banking revolution. The Monetary Authority of Singapore (MAS) has been encouraging financial institutions to develop and share their APIs openly, so that they can work with other service providers to give customers a richer and more seamless experience. In other major economies like Japan and India, leading companies have taken steps to enable third-party data sharing in the absence of regulation. Asian mobile payment services such as WeChat and AliPay are the region's data-sharing pioneers accounting for 93 per cent of China's mobile payment segment.

- Asia's financial hubs, Hong Kong and Singapore are leading the region's Open Banking digital revolution.
- 2FA (2-Factor Authentication) being implemented to combat massive QR-code fraud in China.

5 LATIN AMERICA

As for Latin America, Mexico stands out after passing the FinTech law, which gives fintech companies greater regulatory certainty around issues such as crowdfunding, payment methods and cryptocurrencies. It lays the ground for Mexico to introduce an open banking regime. It will require financial institutions to provide authorised third-party service providers with open access to customer data.

Discussions on implementation of an API standard designed by the Open Data Institute are in progress. The CNBV has six months to issue the first set of secondary rules for the sector, with subsequent provisions set to follow after 18 months and 24 months.

- The remaining LatAm countries, will make a qualitative leap in the short term, and define their regulatory framework which will develop innovation throughout the region and allow the financial sector to evolve.

- In Mexico, financial institutions will be required to provide authorised third parties with open access to customer account data, making Mexico the first country in the region to implement an open banking regime.

- FinTech Mexico estimates that open banking could generate economic benefit of up to $25M a year to families and companies in interest savings due to increased competition.

6 AFRICA

As one of the most mobile-first continents given the significant unbanked population, open banking efforts have been heavily focused on providing alternative mobile solutions (e.g M-Shwari, M-Pesa, Tala). Open Banking is the opportunity Africa needed to modernize their banking efforts, reaching the wider population.

- Open Banking particularly beneficial in unbanked areas of Africa
- Telecom companies act as a vehicle for open APIs

7 AUSTRALIA

Australia's 4 largest banks -Commonwealth Bank of Australia (CBA), National Australia Bank (NAB), Westpac and The Australia and New Zealand Banking Group (ANZ) - which hold around 95% of market share, are set to enable open API access for customers this year. The national government budgeted AUS$1.2 million for the Treasury in 2017-8 to assess what the open API scheme should look like.

- 4 largest banks with 95% market share, will launch open APIs this year. (images of 4 banks)
- The focus here is still very much on immediate payments but awareness on Open Banking and APIs increases among Australian banks

The financial world unanimously shares the opinion that the customer should be in control of their own data, and that this move will be positive, create opportunity and new sources of revenue. The next step is focusing on how to transition into third-party data exchange. The UK and Europe bravely took the lead, with other continents closely bringing up the rear, benefiting from the learnings of those that went before them.

Aoife Crean
Content Manager

Vaida Pakulyte
Digital Marketing Manager

ABOUT STRANDS

Strands is recognized by the financial industry as "The FinTech Partner for Banks", serving more than 600 bank implementations with a hundred million customers in thirty-six countries, categorizing and enriching ninety-four million banking transactions daily.

The company was founded in 2004 in Oregon (US) and Barcelona (Spain), initially developing personalization and recommendation solutions for the music industry. Apple acquired these early solutions together with a portfolio of 32 patents, allowing the company to focus its innovation efforts on the research and development of financial technologies.

Strands is a FinTech pioneer, with the award-winning solution for Personal Financial Management (PFM), launched in 2008 in the United States and Europe. Strands Finance Suite today includes a portfolio of products that share a common foundation based on Big Data Processing, Artificial Intelligence, Machine Learning, Open API, and best-in-class Customer Experience.

Our mission is to enable banks and merchants to anticipate customer needs and proactively suggest next-best-actions to increase long-term value for customers. Our vision is to empower people to better manage their life, consuming and taking decisions in a smarter, transparent and independent way.

The company currently has 150 employees in Barcelona, Buenos Aires, Kuala Lumpur and Miami.

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