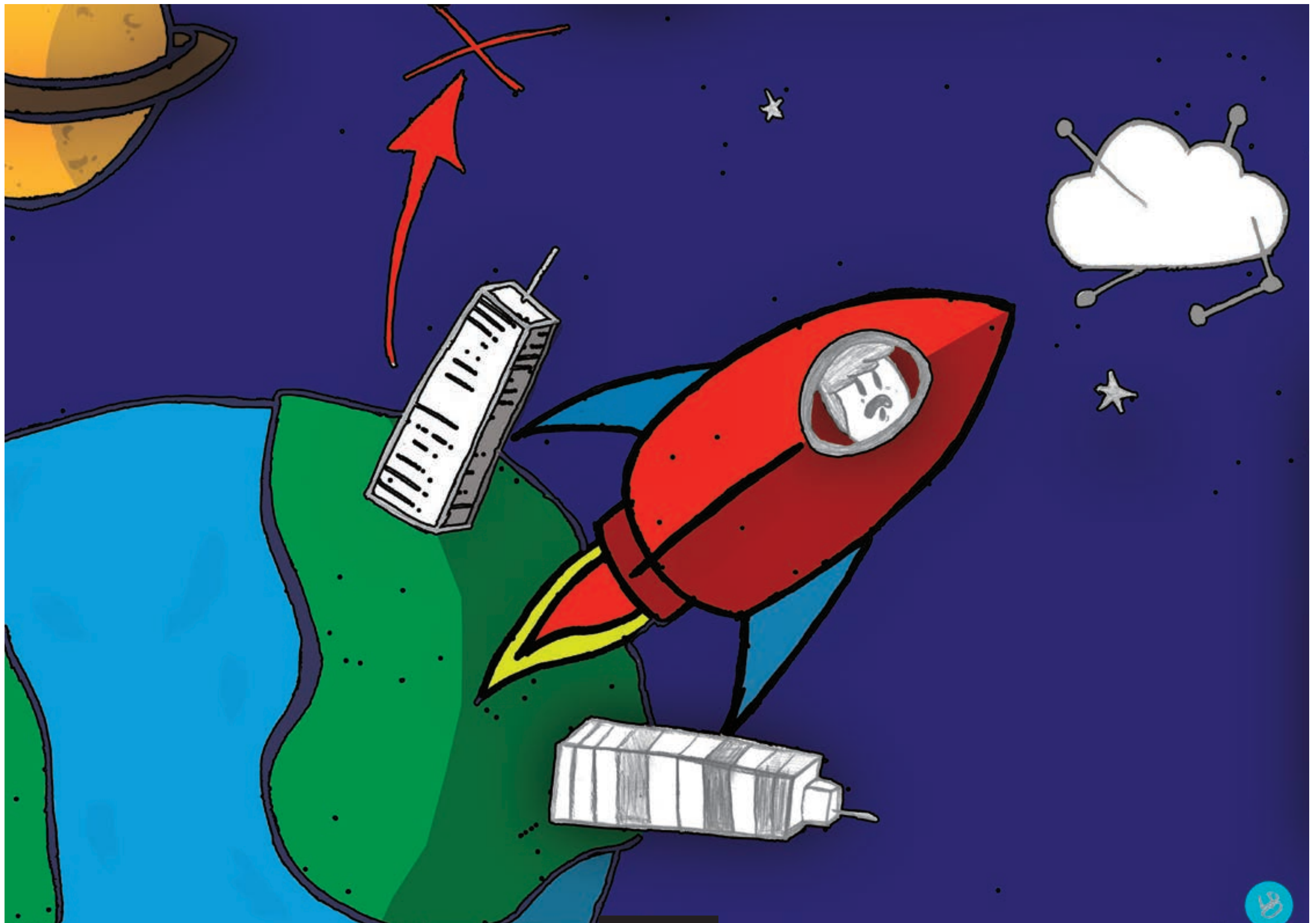
SWISSFINANCE •TECH

#01
April-June 2020

Information technologies in the finance industry



DIGITIZATION IN THE SWISS FINANCE INDUSTRY

Where do we really stand?

FOCUS

Is AI really going to disrupt the sector?

INTERVIEW

Banking needs faster algorithms and clever people

BEST PRACTICES

They have already successfully shifted

PUBLISHED BY VISUAL CAPITAL MARKETS

WEALTH MANAGEMENT

ENTREPRENEUR
& FAMILY OFFICE SERVICES

CORPORATE ADVISORY
& STRUCTURING

ASSET SERVICES

ASSET MANAGEMENT

WWW.REYL.COM

innovative banking

GENEVA ZURICH LUGANO LONDON LUXEMBOURG MALTA SINGAPORE DUBAI UNITED STATES

P28 à 31

NICK SOHNEMANN: BANKING NEEDS FASTER ALGORITHMS AND CLEVER PEOPLE

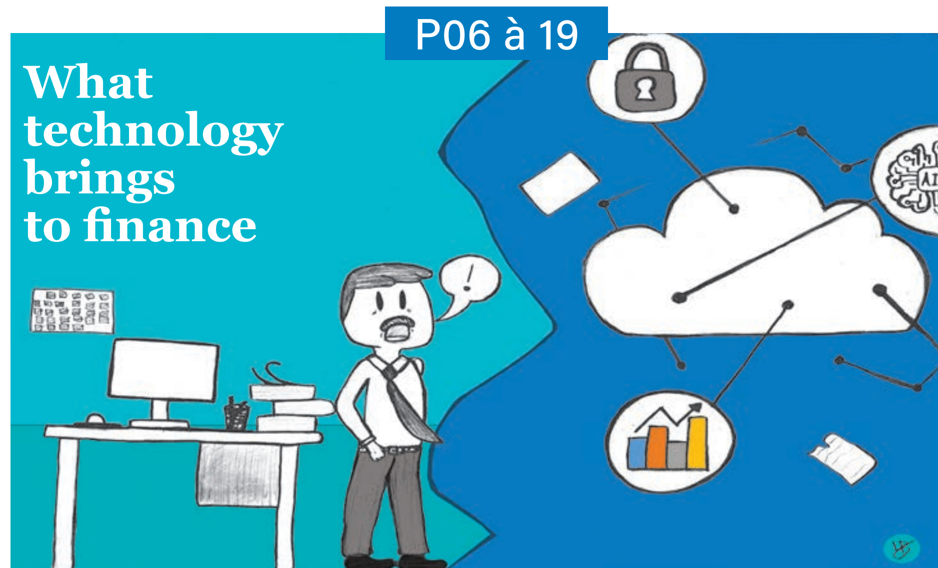
P32-33

MILLENNIAL GENERATION: THE START OF A SHIFT TOWARDS DIGITAL BANKING

P34-35

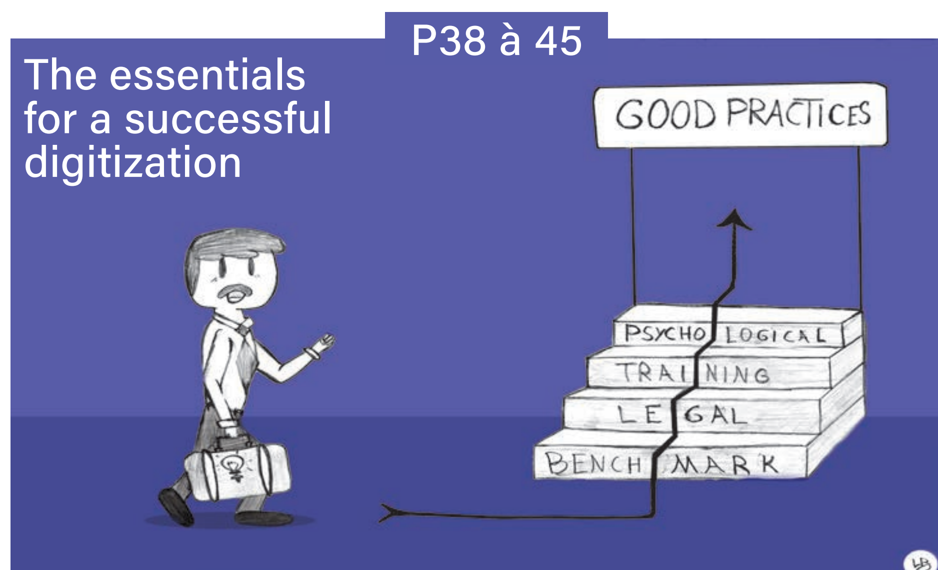
THE SWISS CIO BAROMETER

P06 à 19



P20 à 27

P38 à 45



Editor in chief
Frédéric Barillet

Graphic Design
Lucile Macquet

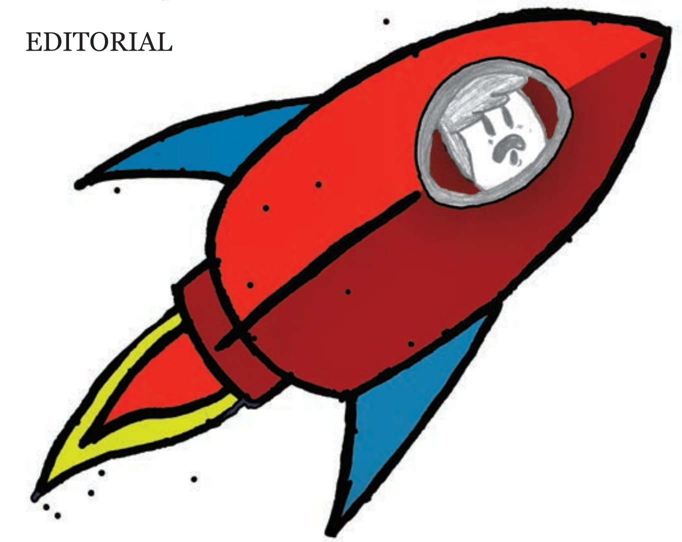
Illustrations
Léon Bordet

Contributors
Thomas Ankenbrand, Géraldine Badel Poitras, Denis Bieri, Damien Cand, Sebastian Comment, Nicola Illi, Aline Isoz, Jérôme Kehrli, René Kohler, Céline Moille, Yavor Papazov, Frédéric Ruiz, Tal Schibler, Patrick Schueffel, Nicolaï Tsenov, Schuyler Weiss, Philipp Zimmermann.

A special thank to Urs Kirchgessner for his precious help!

Publisher
Visual Capital Markets SA
Boulevard Georges Favon 43
1204 Geneva - Switzerland
Phone: +41 22 319 21 11

© All rights reserved | April-June 2020



SWISSFINANCE.TECH

There he is! **SwissFinance.Tech** is your new magazine fully dedicated to the world of IT for finance. The period we are going through has prompted us to offer you a 100% digital publication! You will find here contributions from recognized experts who assess the current state of digitization of the Swiss banks, financial institutions and fintechs.

SwissFinance.Tech is also a website which will bring together the community of professionals and provide you with the essential information you need for a successful digitalisation project. Enjoy reading this e-magazine and please send us your analyses, criticisms and suggestions!

What technology brings to finance

Artificial Intelligence in terms of opportunities and challenges for Swiss banks

Jérôme Kehrli
Chief Technology Officer
NetGuardians SA

Yesterday we were amazed by the first smartphones. Today they have almost become an extension of ourselves. People are now used to be connected all the time, with highly efficient devices on highly responsive services, everywhere and for every possible need. This is a new industrial revolution - the digitization . and it forces corporations to transform their business models to meet customers on these new channels.

Gare à la hausse des prix, qui rogne la rentabilité de la pierre.

Banks worldwide are on the first line in this regards and for many years now they have well understood the urgency in proclaiming digitization as a key objective.
From a user perspective, the digitization confers enormous benefits in the form of ease, speed and multiple means of access and a paradigm shift in engagement. Since banking as a whole benefits from going digital, it is only a matter of time before operations turn completely digital.
The journey to digital transformation requires both strategy investments as well as tactical adjustments in orienting operations for the digital road ahead.
Fortunately, if technology can be perceived as a challenge, it is also a formidable opportunity.
An in this regards, Artificial Intelligence is a category on its own.

ARTIFICIAL INTELLIGENCE AND IT'S POTENTIAL IN THE BANKING BUSINESS

AI provides a unprecedented opportunity to make banks smarter. Deploying AI solutions in banking leads to better customer intelligence and better customer experience.
Both are key to increase benefits and reduce operational costs.
There are multiple applications for AI solutions in the banking business around three major axis:

1. Customer Experience revolution when putting technology in direct contact with the customer
2. AI analytics improving operational efficiency in various domains (e.g. investment research, credit scoring, etc.) or providing personalized advisory to customers
3. Risk mitigation with better fraud detection, more efficient AML, more efficient compliance controls, etc.

One of the most impressive opportunity on the customer experience revolution axis is formed by chat-bots and voice assisted banking. The need for physical presence is definitely fading and technology empowers customers to use banking services using voice commands and touch screens.
In regards to improving operational efficiency within the bank, the most promising evolution comes form the conjunction of Real-time Big Data processing with Machine Learning. The technology can provide personalized, value-added products to customers as it learns about spending habits or investment profiles, but it can also automate most analytics duties within the bank.
Data-driven AI applications are intended in the future to cover the whole range of financial decisions: advisory, calculations, scoring and forecasts, for the bank as well as for the customers. For instance if approving a commercial real estate loan was traditionally a several days process within a bank, using AI will reduce it to a few dozen of minutes.
Last but not least, embracing AI has been at the root of significant improvements in Fraud detection and AML. Companies like MasterCard and Visa have been using AI to detect fraudulent transaction patterns for several years now. At NetGuardians we deploy AI solutions for digital banking fraud prevention and internal fraud detection for several years as well.
AI solutions are key to react proactively and inform the customer before the funds leave the bank. AI enables to implement Transaction analytics but also behaviour analysis aimed at catching more complex fraud patterns.

WHAT ABOUT SWISS BANKS?

Interestingly, while most would describe Switzerland as less innovative than other countries such as UK for instance, especially in the retail banking space, the reality is a quite differentiated picture.
The digital solutions of the major Swiss banks are among the best in the world and Machine Learning algorithms are used down the line on the three axis described above. Due to their conservative nature, the major Swiss banks have a tendency to rather follow the market best practices and state of the art in terms of customer experience evolution but on the backend side - the technology running under the hood - they are rather very well in advance.
The situation of smaller Swiss retail banking institutions is somewhat similar. Their strong footprint in their regions, their attractive conditions as well as their good digital banking solutions in general relieves the pressure. The biggest difference with major banks is that smaller institutions don't necessarily have the ability to research AI or Machine Learning technology on their own so they rely on third party providers such as NetGuardians for fraud prevention or other fintechs for other use cases.
In this sense, keeping a close proximity with engineering schools and universities is a tremendous opportunity to stay on the top of the game and get in touch with the numerous fintechs flourishing in Switzerland. One could only advise them to be less timorous when it comes to supporting these startups since investing in them is eventually their only way to support the development of the technology that will be available to them in the future.
Private banking institutions on the other hand are more vulnerable today, at least for the smaller ones. Their margin is reducing and their wealth management business is increasingly cannibalized by other actors such as External Asset Managers, Fintechs or bigger institutions - even retail institutions where AI has been instrumental into making them reach a level of proximity in advisory that was so far the exclusive privilege of private banks.
Private banking institutions need to understand the urgency in revolutionizing the private banking customer experience and recover the lead in this regards from the other actors. Here as well the opportunities for Artificial Intelligence applications are striking: operational efficiency, advisory, etc.

E-banking is dead? Mobile banking first?

When neobanks face traditional banks: Who addresses client needs better?

Philipp Zimmermann
Head of Product Management Digital Banking
Finnova AG

Many clients see banking as a pure necessity, with a limited fun factor. This has its reasons – paying bills, making transfers and checking your account balance at the end of the month is hardly moving on an emotional level. Banking only becomes emotional if you have reached your card limit, the performance of your portfolios is negative, or you can no longer find the paper version of the interest statement you need to print out. So why are financial institutions making sustainable investments in transaction-oriented channels? Is e-banking even still required if clients are increasingly mobile and no longer want to settle their bank transactions on their PC in the evening, but rather during the day between two meetings or on their commute to or from work?

HIGH COMPLEXITY AND RISING FEES IN TRADITIONAL BANKING

The banking market has been saturated for a long time, with approximately two banking relationships per client. Nevertheless, new competitors are entering the market on an almost daily basis. If you look more closely, you will see that the new banks – the so-called neobanks – only provide the simplest banking functionalities.
On the other hand, financial institutions are grappling with increasingly complex, convoluted products, multidimensional fee models, and high, further increasing fixed costs, which they must impose on the end clients to be able to remain reasonably profitable. Nevertheless, vying for clients' loyalty – whether at banks characterised as traditional or neo – seems to mostly take place using well-known means. Should market directors and marketers not finally be finding new approaches and ways to exceed the benchmark?

ATTACK OR DEFENCE?

Although Swiss banks are attempting to trim down using more efficient distribution and settlement processes, the rich offer of banking products and services may well be too extensive and unclear for most clients. Just think of the complex, convoluted bundling packages for clients in different life stages, of the structured products with trigger limits, of the forms of financing with changing interest rates and barriers, which can be coupled with insurance benefits in individual cases.
In addition, the number of clients in banks' counter areas is sinking, which is contributing to the death of branches and to the loss of a trust-building point of contact for clients. Instead of developing a positive emotional bond with clients as in times of purely analogue banking, (too) many financial institutions are focusing on defending existing products and processes by bundling products or simply redeveloping product communication.

NEW CLIENTS – NEW BANKS

If banks wish to consistently adapt needs to a new target group, old wine in new bottles is not a good way to stand out from the crowd and win new clients. In the thicket of traditional, established banks, however, a refreshing small plant is growing in the form of so-called neobanks (also called challenger banks). These mostly young financial institutions consistently orient themselves towards the communication and consumer behaviour of generations Z, Y and X (in this order). They are consistently developing client-oriented, often purely digital solutions, which enable very simple processes and low fees due to their reduced service offering, thereby winning over clients.

MOBILE FIRST IS STANDARD

There is a simple, but convincing reason why these products are developed according to the 'mobile first' approach: electronic banking is already well established. Approximately three-quarters of the Swiss population settle payments via e-banking today.[1] However, media use has fundamentally changed in the meantime. Smartphones have become a constant companion and internet penetration has reached almost 100% among 14- to 29-year-olds.[2]
Therefore, traditional banks without a clear orientation towards client needs rarely trigger positive emotions among this target group. On the contrary, consistent orientation towards the customer journey and consumer behaviour of this generation is necessary so as not to be viewed negatively. As a matter of course, young clients settle simple transactions online. They have learned this over a number of years and, in doing so, can compare the usability of the various providers on an ongoing basis. They hardly know any ties.
Making contactless payments via smartwatch is today as common as electronic train tickets, which can be redeemed directly in the relevant app, whereby the cheapest fare can be automatically calculated after your journey thanks to the new start and stop function. Whether in respect to transactional banking, e-commerce, information procurement or dialogue with the bank, the modern consumer wants simple solutions that are easy to understand, which are offered via digital channels, and which are designed to be simple, logical and user-friendly. Offers should be instantly available as well as time- and context-bound. Today's clients no longer think in terms of products, but rather in terms of needs to be satisfied immediately, therefore according to context. They are not interested in pension products, but rather have the need for security in old age. They do not opt for e-bills for the sake of the product, but rather because they wish to save time when paying bills. They also do not want to be contacted at regular intervals, but rather only expect a notification when there is something to edit or decide, or if something unexpected happens.

DIGITALISATION INSTEAD OF DIGITAL TRANSFORMATION

Financial institutions with a traditional background often opt for the only viable approach in the course of these challenges: the hybrid bank. This strategy combines the best of traditional banking with digital banking. Nonetheless, the leverage effect and long-term success only set in when the deep-rooted emotional need for security has been satisfied. This means, for example, that clients continue to trust in the capabilities of trained bank advisors when preparing and processing major, complex financial decisions such as buying a house or pension planning, whereby banking services such as advisory meetings mostly continue to take place according to conventional processes, even if simple digital tools are included. Information material, for example, that was previously provided in paper form, can now be converted and thus digitalised in an electronic format.

The latest findings show that advisory cannot be undertaken exclusively by chatbots, at least not yet. Acceptance rates are below average and many of the ongoing projects that are going in this direction are being discontinued. As long as challenger banks do not succeed in overcoming the emotional hurdle of an important, personal relationship and trust, the profitable advisory business will continue to be dominated by traditional banks. Their digitalisation activities continue to cater for sufficient competitiveness against the simple digital products and services of the challengers.
But be wary: if the willingness of clients to break free of longstanding patterns grows, digitalisation of 'old' processes and products will not be enough. Only those who can integrate the digital transformation as a continuous, superordinate process into the company's DNA will live up to consumers' expectations in future. Only then can companies consistently orient both their processes and products towards the needs of the end clients – in the same way as challenger banks are doing today.

Variety instead of monotony

Time for new solutions in private wealth management.

Clevercircles, the digital investment management platform of Bank CIC, is the first multi-advisor in the world and combines the intelligence of human beings with the efficiency of machines. This brings the idea of community into the world of investment.

Together, Bank CIC and ti&m have developed a new digital investment management platform which differs markedly from existing current services. The platform, which entered the market in spring of 2018 under the name clevercircles, has, for the first time ever, linked the advantages of roboadvisors with the potential for the client to strategically manage their asset allocation themselves. In the process, the client will be able to check their opinions with a chosen trusted third party or with the crowd.

With regular participation in decision making, clevercircles provides new approaches and not only the hard facts, such as the low costs and easy access, are convincing, but also the soft factors. The focus is on the person. Before people make important decisions they normally verify their opinion with chosen trusted third parties. This applies equally to experts and inexperienced investors. Community spirit in the investment environment. In the age of social media, this process is increasingly happening online. Communities are emerging that are often larger and more diverse than just purely personal contact. clevercircles has recognized this and channelled this community spirit into the world of investment.

PARTICIPATION IS KEY

For this reason, the new platform places the focus on client participation as an important requirement. clevercircles allows clients to regularly adjust their investment strategy at a tactical asset allocation level using simple and intuitive questions. In doing this, clevercircles has bridged the gap between the automated investment management systems and complicated trading platforms in the digital range offered by banks.

MUCH MORE THAN A ROBO-ADVISOR

On clevercircles, the client specifies their individual investment strategy. The client can determine the investment ratio of 16 underlying asset classes which can be specified and completely customised to suit their individual requirements. Each one corresponds to an ETF or an index fund respectively from clevercircles' investment universe. Additionally, the client sets strategic ranges for each investment class, within which the weightings can be regularly adjusted. This means that the client has a great deal of flexibility and they also have the option to specify asymmetrical ranges.

A SMALL DETAIL THAT MAKES A BIG DIFFERENCE.

Every two months a restructuring cycle is carried out. At the core of this lies co-operation. Every participant can submit their forecasts for the most important markets using a simple questionnaire. The questions are worded intuitively and they can be answered without any previous knowledge. There are no technical financial terms used in the additional accompanying texts. This makes a subtle but important difference to the platform in terms of its user-friendliness.

WISDOM OF THE CROWD

The clevercircles client can compare their own opinion with that of their own "circle", as is usually the case with families, friends and especially in the case of expert investors. You can imagine the circle as a self-compiled "investment committee" with the one difference being that the account holder can verify his/her views with those of the people that they trust the most, but in the end, makes their own decisions regarding effective restructure.

OPPORTUNITIES FOR INDEPENDENT INVESTMENT MANAGERS

clevercircles is client-compatible and can be used by other investment managers, banks and insurance companies using the white label model. It is a quick and cost-effective method of providing a multi-advisor. The existing clevercircles community can be shared with your own community. This leads to an increase in collective intelligence for all participants which creates a real win-win situation. The partner institute can draw on the existing community and the existing community also benefits from the new opinions on the platform. The client benefits the most from this, with a high level of diversity and a stronger foundation in the collective vote.

Three questions to

Sebastian Comment, Managing Director Clevercircles

"Clevercircles isn't just another Robo Advisor."

How important are investment experts to Clevercircles users?

"Professional market assessments are a customer need. We are the only investment platform that allows you to combine different professional opinions at the investment strategy level. Accordingly, we try not only to enlarge the circle of investment experts who participate in our platform, but also to be able to offer different philosophies, be it classic portfolio managers, financial journalists or modern approaches such as Behavioral Finance. The expert opinions often serve as an aid in deciding whether one's own portfolio should be reallocated. For many clients, this approach to tactical asset allocation is new and therefore independent and professional advice is in great demand."

Does Switzerland need another Robo Advisor?

Robo-Advisor is only a term, only a fuzzy one. The essential question is what are the customer needs and are these covered. We have conducted a wide-ranging survey on this issue. Not surprisingly, low costs and simplicity are imperative, but today you can no longer differentiate yourself with them. What is expensive and complicated will not be accepted. The most frequently mentioned desire after that is regular involvement. Two out of three Swiss respondents consider it (very) important to be able to make regular decisions about their portfolio composition. This is where we come in and present not the 24th Robo Advisor, but the first Multi Advisor!

Gamifaction in banking is so far rather a marginal phenomenon in Switzerland, why and how do you rely on it?

Clevercircles stands for efficient and focused investment that is also fun. For example, we use gamification elements to combine these goals by translating a new dimension of transparency in a playful way. In concrete terms, we compare the success rate of market forecasts for each participant and each circle. In terms of figures, this is a somewhat complex story, which is why we translate it into simple experience points. These experience points are in the basis a sharp measure for the quality of market forecasts, we use them for rankings and trophies etc.. This means that every clevercircles participant, even if he is not familiar with investment formulas, has a simple orientation and can quickly assess whose forecasts are good.

Fundraising in cryptocurrencies: a French-Swiss look at these legal, economic and technological innovations

Géraldine Badel Poitras
Avocate Associée
Gillioz Dorsaz & Associés (Suisse)

Céline Moille
Avocate Associée
Partner
Yellaw (France)

Damien Cand
Avocat Associé
Gillioz Dorsaz
& Associés(Suisse)

Switzerland and France are two innovative countries in terms of regulation, with policies that support new technologies, fostering a boom in fintech companies and solutions. Among current news topics, one can mention the obvious appeal of the Swiss legal and political environment for the initiators of the Libra project – which certainly made a lot of headlines in 2019 – or the recent call by the Banque de France President for the launch of a digital central bank currency (crypto-euro). As far as new fintech players are concerned, Zurich-based SEBA Bank SA and Sygnum Bank SA were the first to obtain a Swiss banking license for cryptocurrency holders. SEBA Bank SA even recently spoke of international ambitions, declaring itself capable of "onboarding" (i.e. accepting after a successful due diligence process, mainly so as to comply with money laundering legislation) residents of more than 10 jurisdictions, including France. It is undeniable that fintech projects do not stop at borders or jurisdictions.

The particularly innovative tools and solutions provided by fintech technology may prove interesting and accessible to SMEs that are looking for investors to finance their projects or want to raise funds in a flexible and alternative manner to traditional financing, be it locally or even internationally.

If one has to look beyond borders, the keys to successful fund-raising lie in the project itself and the players involved, but above all on adequate anticipation of the legal and regulatory aspects.

When considering an Initial Coin Offering (ICO), a Security Token Offering (STO), or any other offering that involves a token (token, wedge) – or the issuance of digital assets – it is certainly worth checking in advance what authorisations, if any, need to be obtained and what are the possibilities and limitations. This article aims to provide a brief overview of the regulatory situation in Switzerland and France.

SWITZERLAND, A PIONEERING COUNTRY!

Switzerland was one of the first countries in the world to benefit from the positioning of its authorities in terms of regulations applicable to the fintech world.

Generally speaking, Swiss financial market law is based on a neutrality principle with respect to technology and analyses economic aspects according to the category of tokens, their purpose and the "same risks, same rules" adage. As early as 2018, the Swiss Financial Market Supervisory Authority (FINMA) issued a practical guide to anticipate the authorities' position by token category, clarifying whether it is subject or not to financial market law, in particular as regards money laundering provisions and securities trading rules. Switzerland, and Geneva in particular, with its legislative, regulatory and tax context, has thus distinguished itself as a host country for such projects.

The banking context is also particularly interesting for a project developer. Indeed, the Swiss Bankers Association has issued a guide to opening corporate accounts for blockchain companies.

On 27 November 2019, the Swiss Federal Council submitted draft legislation aimed at further improving the legal framework governing blockchain companies. The Confederation has decided to link this technology to existing securities law by creating specific securities rights (such as a virtual share entered in a register) while respecting private autonomy. It is not yet known when these legislative amendments will come into force.

The obligation for the issuer to hold an authorisation or license is not systematic, but depends on the classification of the token:

- a payment token is a pure currency crypto, i.e. a means of payment against a traditional currency or a different cryptocurrency (e.g. Bitcoin);

- a utility token is a token for digital use or service and is based on blockchain technology (e.g. Golam);

- a security token represents the underlying property or assets and can be assimilated to a share, a bond or a derivative financial instrument;

- a hybrid token is a token that includes at least two elements of the former categories;

- a stable coin (e.g. Libra) is a type of cryptocurrency whose value is based on that of another asset (currencies, commodities, real estate or other transferable securities).

Once the qualification of the token has been carried out, the project organiser must determine whether an authorisation is required. The FINMA guide provides useful information on this subject:

- payment tokens are not securities, but their issuance from Switzerland as a means of payment constitutes a service for payment transactions and is subject to the obligations of the Money Laundering Act (MLA);

- utility tokens are generally not regulated. If, however, they have an investment purpose, FINMA considers them to be securities, even in the case of pre-sales. As such, the legal and regulatory consequences of this classification must be taken into account;

- FINMA generally considers investment tokens as securities. Depending on the case, the issuance of digital tokens can imply an obligation to draw up a prospectus and their sale require dealer authorisation;

- there are no specific regulations at the international level or in Switzerland for stable coins. Still, Swiss financial market law generally works on the above-mentioned principles. If the stable coin is pegged to a currency, it will in principle require a banking license (since the safekeeping of these tokens will be considered as a bank deposit). If it is linked to commodities or other securities, this may require authorisation as a collective investment scheme.

In order for the project organiser to ensure that it does not violate current regulations, an analysis of legal and tax qualification is necessary. A preliminary application can be submitted to FINMA in order to clarify the regulatory treatment of the token and to secure the project from its onset. It is also advisable to examine the legal structure adapted to the project (such as a public limited company, a limited liability company), to check the process of acceptance of

the funds transmitted by the investors (the "onboarding" discussed earlier) and their storage, to establish general conditions and, finally, to make sure of the future marketing strategy.

These regulatory elements are not to be taken lightly. In the event of illegal activity, FINMA may carry out an enforcement procedure that could lead to the outright termination of the project and company deregistration, not to mention the respective responsibilities of its leaders. This was sadly illustrated by the bankruptcy of Zug-based Envion SA, which had professionally accepted deposits from at least 37,000 investors without having the necessary authorisation for such activity.

FRANCE, AN INNOVATIVE COUNTRY!

In France, the PACTE law of 22 May 2019 instituted a new regime designed to encourage the development of ICOs by providing for the principle of an optional visa issued by the French Financial Markets Authority (AMF) in the context of a public offering of utility tokens. This optional French visa is a novel system from a global point of view – which notably does not exist in Switzerland. We find it particularly interesting and innovative, especially for products aimed at the general public.

A first ICO obtained its visa in December 2019, that of the company French-ICO, which has developed a platform for financing projects in cryptocurrencies. The AMF will verify the following points:

- the issuer of the tokens must be a legal entity established or registered in France;

- an information document (commonly known as a "white paper") must be prepared in accordance with the General Regulation and instructions issued by the AMF;

- a procedure enabling the monitoring and safeguarding of the assets acquired in the context of the offering must be implemented by the issuer;

- the issuer of tokens must provide for a mechanism enabling it to comply with its obligations in terms of the fight against money laundering and terrorist financing.

The AMF examines the file and then decides whether or not to approve it. It should be noted that while the visa is optional and ICOs without a visa remain legal, only public offerings of tokens that obtained AMF approval may be canvassed by the public.

The AMF also monitors the issuer of the tokens during and at the end of the fund-raising phase, requiring the issuer to put out a press-release informing subscribers of the outcome of the offering, within two business days of its closing.

The AMF has introduced a number of provisions relating to the fight against money laundering and terrorist financing that the issuer must comply with (Articles L. 561-2 et seq. of the Monetary and Financial Code). To help issuers better understand their main obligations when offering tokens to the public, the AMF specifies that it will pay particular attention to the following aspects when examining applications for approval:

- the implementation of a risk classification to determine the risk profile of each subscriber and the level of vigilance measures that will be complied with;

- for any subscription exceeding EUR 1,000 or for any subscription, even if below that threshold, that is suspected by the issuer to involve money laundering or terrorist financing, the implementation of vigilance measures enabling the identification and verification of subscribers' identity;

- regardless of the amount of the subscription, the implementation by the issuer of an internal organisation involving procedures that make it possible to determine the profile of the relationship established with the subscriber and to manage any identified risks.

In the event of non-compliance with legal and regulatory provisions, criminal penalties are provided for.

Issuers of tokens may entrust external service providers to perform, in their name and on their behalf, all or part of these procedures.

This manner of regulating fund raising in cryptocurrencies may end up reinforcing the attractiveness of France in the blockchain ecosystem, not only because investors see it as very secure but also because the visa provides a competitive advantage to the project leader that obtains it.

Last year was certainly rich in events and legislative developments, but the new digital decade is just beginning!

Geneva WealthTech Forum

FROM THE CRADLE OF GLOBAL WEALTH MANAGEMENT : INDUSTRY LEADERS AT THE FOREFRONT OF DIGITAL INNOVATION

3RD EDITION
CAMPUS BIOTECH

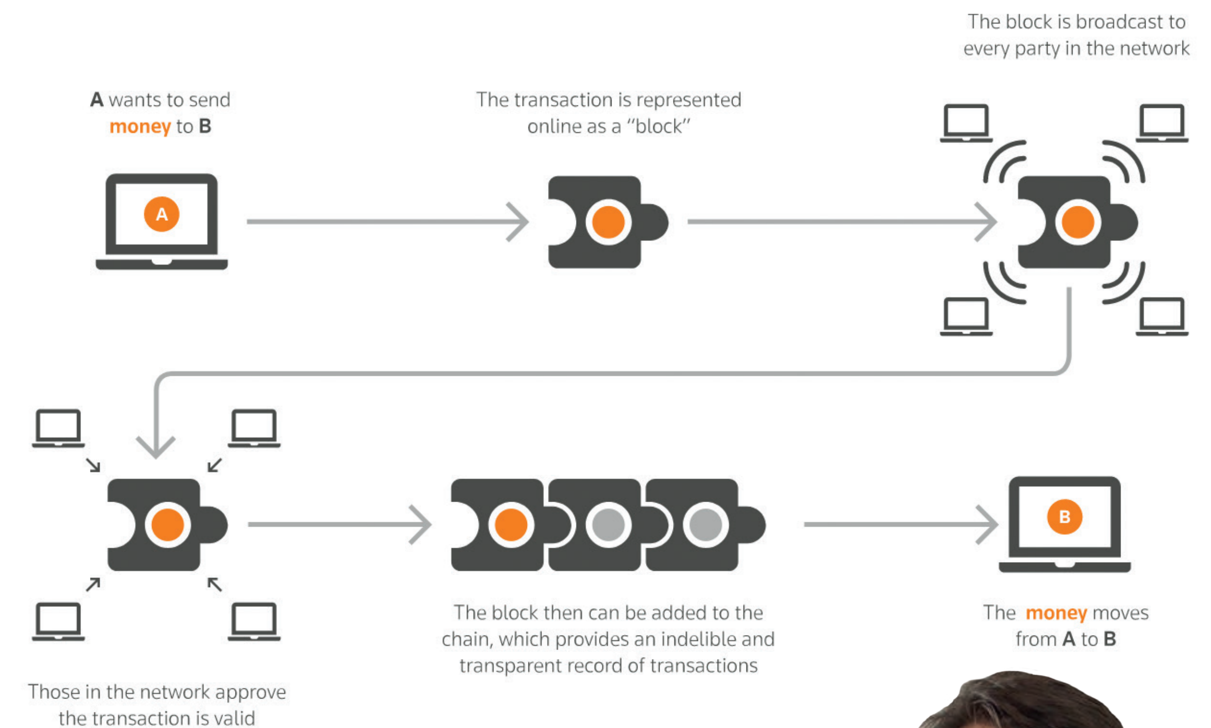
GENEVAWEALTHTECHFORUM.COM

CATCH US ON OUR SOCIAL MEDIA :

Blockchain (R)evolution

When neobanks face traditional banks: Who addresses client needs better?

Blockchain aims to transform the 21th century by way we exchange information. By having a secured and trustable distributed ledger this technology can bring value to transactions, therefore allowing to exchange real value stored digitally and without any third parts. Peer to peer transactions furthermore gives back the power to people instead of institutions or intermediaries.



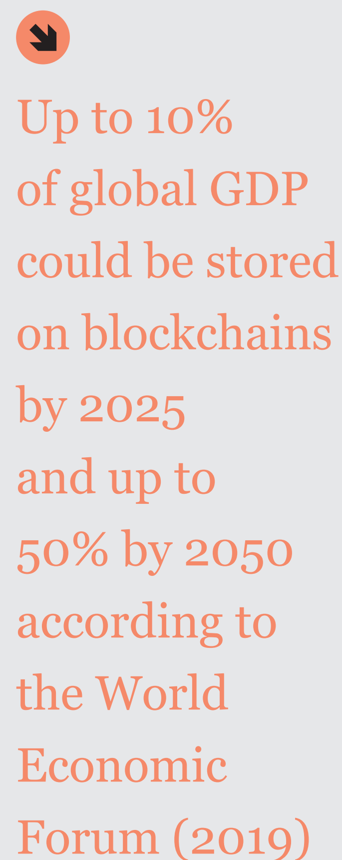
Financial services are by far the most advanced in experimenting with this new technology, but others like supply chain and pharmaceuticals hold vast potential to identify and investigate promising opportunities.

BLOCKCHAIN IMPACT ON FINANCE

Finance industry will undoubtably be impacted by blockchain technology. For instance, many well-established financial operations could be completely transformed and restructured. There will be improved transparency and auditability of business practices. Process optimization including compliance concerns will allow to better reallocate time spent by focusing on high added value tasks rather than administrative ones. Lower transaction costs will be permitted by the creation of trust without centralized intermediaries. Further, these technologies hold the promise of a new native digital asset class with a high potential liquidity thanks to tokenization process.

WECAN TOKENIZE - ASSET TOKENIZATION

For instance, Wecan Tokenize, is a tokenization platform for the real estate and financial sector launched in October 2019. Wecan Tokenize is the result of partnership between Wecan Group, blockchain venture-builder, Capelli listed real estate group and Geneva Management Group family office. The aim of the platform is to digitize investment and the ambition is to increase the liquidity of assets by facilitating and securing transactions while injecting a new dynamic into real estate and financial investment. The whole process is 100% digitized from KYC to investment.



WECAN ACCELERATE – DEVELOPPING PAYMENT SOLUTIONS WITH LIBRA

Wecan Accelerate is a blockchain accelerator program based on Libra solutions. The program is in partnership with Libra association, Emakina and CREA is to educate on how Libra blockchain can be used and deployed on different industries. From micro to cross-border frontiers payment, opportunities arising from the use of a stable crypto-currency as a mean of payment are various.

WECAN COMPLY – SIMPLIFYING COMPLIANCE

Wecan Comply enables banks and financial players to simplify compliance management by pooling resources, creating recognized standards and facilitating auditing and monitoring by regulators and is designed to increase compliance efficiencies. This solution illustrates how distributed ledger can improve the process optimization mentioned above in the major trends identified for blockchain in the financial sector.

WECAN PROTECT - FOR ASSET PROTECTION

Wecan Protect coordinated by Philippe Lucet, an intellectual property specialist aims to facilitate the registration and protection of intellectual property of intangible assets worldwide. This blockchain based solution shows how can value can be created for non-registrable assets thanks to this technology. The concept could be applied for other areas: allowing to unleash value of non-quantifiable assets could create a new economy, for example ecological incentives via token rewards.

Dr. Vincent Pignon
Chief Executive Officer
Wecan Group SA

These topics everyone's talking about

by Sven Biellmann - Product Manager Ecosystem - Finnova AG

Open banking in Switzerland: myths, facts, opportunities

At the latest since the introduction of the second EU Payment Services Directive (PSD2), open banking has enjoyed considerable attention in the Swiss financial centre. Open banking offers new options for business model innovations, and challenges banks to actively adopt a standpoint.

The media hype surrounding the topic of open banking has fuelled numerous myths and lead to misunderstandings concerning the ultimate aim and implementation.

THE MYTHS

Common myths include:

- Open banking is intended for fintechs; traditional financial services providers are losing out and must relinquish the client interface and data access.
- Open banking offers a new user experience in and of itself for financial services.
- Possible business models, as well as roles and forms, are clearly defined.
- Integration in the context of open banking is very simple and intuitive.
- The standardisation of the interfaces required for this is a given.

THE FACTS

There is currently no obligation to open up software in Switzerland. The Swiss Bankers Association rejected such a regulation in a position paper and trusts in the self-regulation of the sector. Banks and interest groups are free to decide whether, for whom and under which conditions they would like to open up their systems, i.e. make data available.

In Europe, the business cases for account information and payment initiation services are consistently regulated on the basis of the PSD2 regulation. However, for the time being, the new requirement of two-factor authentication, the cumbersome and differently operationalised process of consent management, and the various API standards are creating more hurdles in the user experience in the European market. The costs for fintechs to adapt their existing offers are also considerable.

In light of the situation, numerous European market participants are following the strategy of implementing the minimum PSD2 requirements and, in parallel, implementing their own APIs and business cases within their ecosystem. Is this a strategy that also lends itself to Swiss banks?

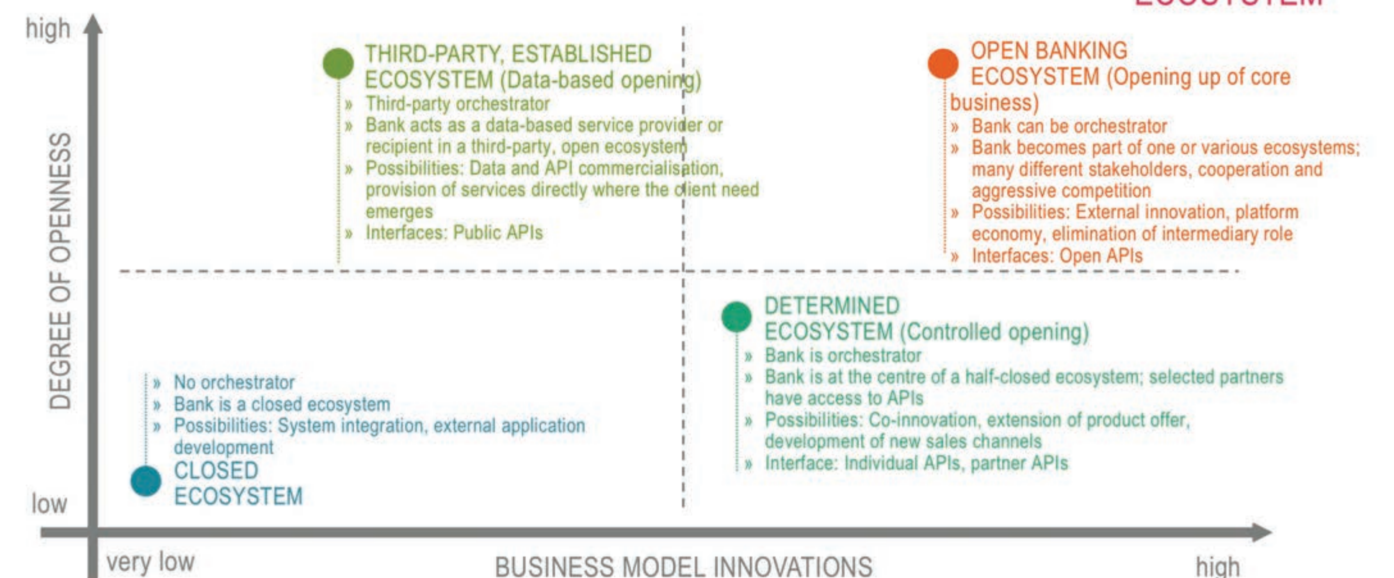
In Switzerland, there is a particular focus on corporate clients with regard to open banking services. Retail clients of Swiss banks are waiting in vain for access to appropriate open banking services, such as the possibility of multi-banking. The necessary standards, a common understanding of 'helvetisation' (yes, this exists in spite of standard API definitions), and guidelines for operationalisation are lacking. Various initiatives driven by SIX, SFTI and OpenBankingProject.ch are attempting to close the gap in order to take a first step forward. For this step to succeed, Swiss banks must ideally agree on a standard and implement this at operational level. Standardised interface documentation is worth nothing if it has not been correctly implemented on a platform and cannot be tried and tested.

THE OPPORTUNITIES

Despite these inconsistent general requirements, the open banking 'movement' offers new options for business model innovations.
If you imagine open banking as a business ecosystem, various forms can be defined. These forms can be represented two-dimensionally(see graph).

Financial services providers need to consider in which form they want to be active and how they can reach that goal. These considerations should lead to a comprehensive strategy of opening, which describes and anchors the upcoming changes.

The study 'Ecosystems 2021 – what will the future bring?' of Deloitte/BEI St. Gallen* clearly shows that added value and client interaction will increasingly shift towards business ecosystems. APIs are the key to offering products and services in these business ecosystems.
BBVA with Uber in Mexico is a specific example of such an offer.** There, Uber drivers can open a digital account with BBVA directly in the Uber app, which is connected with a 'Driver Partner Debit Card'. The drivers' earnings are credited to the account within a few minutes. With this, BBVA is offering a product that 'lives' exclusively on the platform of a third-party provider, in other words in a third-party, established ecosystem.
Standardisation of the offered products and services is indispensable for 'designing' business ecosystems such as this large enough to be profitable. In the financial services sector, such standardisation efforts are still in their infancy, with the exception of the payment services sector. Standard processes in the retail banking sector such as client onboarding, product opening, financing processes for new transactions and extensions are still individually implemented.



Source: FINNOVA

A NEW CULTURE

The topic of open banking is not a question of 'either/or', but rather a journey that favours new strategies. Participating in this journey is associated with opportunities and forms the basis for the implementation of a comprehensive digitalisation strategy. The significance of collaborative business models (business ecosystems) will increase as new, innovative services can be offered and new earning opportunities can be developed as a result.

The journey towards a practised open banking strategy is not an easy one. It demands clear standpoints from banks. Open banking is not only a vision or a new strategy, but rather requires a completely new culture, which actively establishes openness, new partnerships and business ecosystems apart from existing business models.
And despite all the myths, the fact remains that open banking is much less a technical challenge than a process of change, which needs to be driven forward with conviction by banks, financial services providers, fintechs and core banking software providers.

* https://www2.deloitte.com/ch/en/pages/financial-services/articles/ecosystems-2021-was-bringt-die-zukunft.html
** https://www.bbva.com/en/bbva-in-alliance-with-uber-launches-the-first-banking-product-in-mexico-that-operates-in-a-third-party-app/

GLOSSARY

API (Application Programming Interface)

Stands for a programming interface. APIs allow third-party providers to use data of bank clients and functions of the banks in connection with this data.

Business ecosystem

Dynamic network structure of interdependent stakeholders that create value together by aligning their individual needs and capabilities with a common purpose.

Multi-banking

Possibility for clients to view and manage all accounts, and make transactions conveniently on just one platform. A one-time login suffices, instead of having to log in for each individual account.

by Dr. Patrick Schueffel - Professor institute of finance - HEG Fribourg

Why banks and fintechs should partner to be more efficient

Most smart people in the world don't work for us.

This insight which is attributed to the computer scientist Bill Joy is a simple fact. It's a matter of numbers: Even if you hire legions of people you, as a single firm, you will never have the majority of smart people working for you. But how do you get this majority of smart on board? How do you engage them? You can't hire everyone, can you? In the end companies exist for a reason: organizations establish clear boundaries to make sure that things work smoothly inside and that any interactions with the outside follow clear rules. Logical reasoning therefore demands it that a firm cannot just hire everyone to work for this very company. Moreover, where would companies end up with their trade secrets and intellectual property if everyone works for them? This question is all the more important in banking as banks are entrusted with highly sensitive data of their clients.

So how to resolve this dilemma? In the beginning of the millennium Berkeley professor Henry Chesbrough pondered this question in depth and came up with a solution: Open Innovation. According to Chesbrough Open Innovation denotes "purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively". In other words, he suggested opening the organization's boundaries to let ideas flow across them. If there is an idea outside the firm, so his reasoning, don't dismiss it as not invented here, but take it seriously and put it to purpose inside the firm, if it is of value. On the other hand, if employees of the firm have an idea they can't pursue inside the organization, why not look for external partners to monetize it?

While this concept looks nice on paper, it faces significant difficulties in the banking world. Already a few years back I reached out to seven Swiss banks and asked them why they hadn't adopted this concept in their firms. It turned out that mainly three hurdles hampered the adoption of Open Innovation in banks: a lack of organizational culture that fosters innovation and risk taking, missing knowledge of innovation management techniques, and a lack openness towards suppliers and clients.

JOINTLY BECOME MORE EFFICIENT

If we look at Fintechs they could bring exactly these three attributes to the table: firstly, an organizational culture that champions innovation and is sufficiently risk prone, secondly, innovation management techniques, such as design thinking, the business model canvas and the agile methodology, and thirdly an open posture towards suppliers and clients as they are typically less hierarchical and often closer to their clients than pure bread financial institutions. At the same time banks could bring to the table what Fintechs are typically lacking: in-depth business expertise, a long-established and trusted brand, sales channels and funding. In this way true win-win situations could be created.

Being oftentimes highly complementary, banks and Fintechs should definitely cooperate to become more efficient. Luckily this has also dawned on banks in the meantime. As a result, we can now observe an increasing number of innovation labs being setup by banks. These innovation labs reach out to players in the Fintech world with hackathons and challenges as well as incubator and accelerator programs. Moreover, dedicated service providers such as Fincrowd in Switzerland are now available that can facilitate Open Innovation for banks. Given these developments I'm positive that banks and Fintechs will increasingly find each other to jointly become more efficient in pursuing their common objectives.

TRENDS

by Yavor Papazov - Technical Manager - CyResLab ESI CEE

Mind the Cyber Gap!

Challenges for the Financial Services Industry

2019 is not looking great so far in terms of cybersecurity – a report identified that for the first half of the year, there were 54% more data breaches than the same period last year. With little time left, there's hardly an expectation that the trend will reverse and in response businesses and governments around the world prepare to weather new storms by increasing cybersecurity spending with an estimated 8.7% for this year over the entire industry. However, the real "growth" is in the annual financial losses, caused by cybercrime – they're well on track to reach the token figure of $2 trillion in 2019 and are expected to surge to the eye-watering sum of $6 trillion in 2021, all of this happening at the decidedly gloom backdrop of a severe skilled worker shortage – Welcome to the Cyber Gap.

Security experts in the financial services sector are hardly strangers to these facts and statistics – pressure on the sector has been steadily rising for quite some time now. It feels like companies have been plunged into navigating the strait between Scylla and Charybdis. On the one end, attackers have clearly demonstrated an escalating degree of sophistication, proficiency and cost-efficiency of their malicious campaigns, demanding increased security spending, while on the other non-banking Fintech companies lead the innovation "arms race", spearheading the adoption and deployment of untested technologies and business models, while often avoiding the weight of the anchor – legal and standards compliance.

The battle for securing the IT of the financial world rages on (at least) three fronts: protecting the end-user, preventing large-scale instances of "CEO fraud" and, of course, defending its own IT footprint, be it in terms of internal or customer-facing systems. Let's take a look at these battlefronts:

The end-user is truly the bottom of the food chain of the digital security world – preyed upon by all malicious actors and unequipped to respond. Often less interested in their own cybersecurity than the providers they share their data with and severely limited in their attempts to improve it by an under-developed market, the user finds solace mostly in the knowledge that their data is "not alone" – any competent malicious campaign will manage to harvest the data of thousands, if not millions of victims with regrettable certainty. The targets of such attacks are usually either large data arrays, containing suitable information – credit card numbers (e.g. the MoviePass breach), wire transfers, pictures of driver's licenses (e.g. Capital One, First American Corp breaches) - or the personal devices that are used to access e-banking or m-banking services.

While financial services providers cannot directly address third-party breaches, thorough and robust authentication requirements are necessary to prevent successful exploitation. Typical negative examples include the preference for SMS as a second authentication factor, even though the related SS7 protocol has publicly documented vulnerabilities, observed to be exploited in the wild in this particular context as early as 2017.

The other major target – end-user devices – is also under constant threat, as demonstrated by the resurgence of the Emotet botnet/dropper, utilizing Word macros in spoofed email messages as the delivery mechanism for other, even more sinister malicious code. Again, without any direct means of control, the financial service provider is forced into the position of trying to detect outlier transactions, usually attempted long before the user is aware of the breach.

Large-scale "CEO fraud" attacks also remain immensely popular, at least in part due to their relatively high efficiency and their 'blitz' format: The MO of the attackers follows a tight script; the victim(s) are businesses with a pre-established level of trust (usually a direct customer/vendor relationship) and a history of large wire transfers in terms of payment mechanisms. The attackers gain access to previous email communications and are able to successfully impersonate the vendor, using the established tone of communication (formal, friendly, ...) and email spoofing techniques afford them the opportunity to forge a spear phishing letter, demanding or requesting the redirection of a due invoice, often claiming the identity of a person of authority, such as a CEO (hence the name). This attack type was leveraged very successfully by the group APT38 during the last few years, resulting in the theft of an estimated $100 million.

Of course, a company's own IT security is always paramount when cybersecurity posture is measured, and with good reason – handing the keys to the kingdom is never a good security recipe. In practice, data breaches often originate from configuration management failures (lack of critical security patches, outright missing access control, untracked vulnerable dependencies, etc.) or (more rarely) insider threats. While "knowing who to trust" has been an essential question since the dawn of finance, IT operations configuration management at scale is a decidedly newer problem. To address it, experts agree in recommending a strong focus on monitoring and detection – after all, most breaches are detected more than 6 months later. A modern cybersecurity enterprise setup includes a Security Incident and Event Management (SIEM) product, collecting and analyzing logs in real time as well as a Security Operations Center (SOC) team, be it managed or in-company, able to defuse brewing crises and prevent the privilege escalation of an already active attacker.

So how does a financial services company survive the jump over the cyber gap? Advice is hardly uniform, but most experts agree on several points: focus on cyber on the strategic level, invest in experts and culture, as well as in tools, and finally: Test, test, test – internal QA & security, third-party pentests and even bug bounty programs. As to your cyber strategy – in a word, the current paradigm is resilience, but that is, as they say, a story for another time.

by Nikolaï Tsenov, Product Manager Data Analytics, Finnova AG

Dynamic Risk & Opportunity Based Profiling

Customer profiling has been constantly gaining in importance over the past few years, driven mainly by two independent forces. On one hand regulators worldwide require financial institutions to do regular assessments of their customer and business relationships based on the so-called risk-based approach. On the other hand, more and more financial institutions realise the value and the potential of customer profiling for analytical CRM purposes in areas such as customer retention, cross and up-selling, revenue scoring or best next action. Surprisingly, even financial institutions that do both rarely apply this analysis in a uniform, consistent and integrative way across all areas of their organisation, but rather in isolation, in an inconsistent and limited manner.

The advantages of a truly uniform, consistent and integrative, 360° analytical customer view are more than obvious in terms of insight gained, completeness, accuracy, synergies, costs, infrastructure, data and resources. A simple and adequate linear regression, or a decision tree analysis applied in isolation in one of these areas can turn into a precious source of hidden behavioural patterns when enriched with additional dimensions, analysed and considered from a multidimensional perspective in a unified and consistent manner.

In such cases, attributes that are completely static, usually irrelevant or even ignored suddenly become gamechangers for a while, before disappearing again and going back to 'normality'. But what is 'normal'? How stable is this 'normal' nowadays? And for how long? Can you really reflect the complexity of the outside world by applying some 'R' or 'PYTHON' algorithms to a bunch of data targeting an isolated problem or question? How much subjectivity is involved in the selection of these algorithms, their configuration and parameterisation? Are you reliant on the skills and availability of an almost unaffordable quant for all that?

CLEAR AND OBVIOUS ANSWERS

We talk about sophisticated data analytics approaches, debating and philosophising about what is ML and what is AI, riding on the AI wave, dazzled by buzzwords. At the same time, we seem to have missed the forest for the trees by focusing on isolated issues and silos rather than addressing complexity in a unified and consistent way. And why? Because it is easier, more comfortable and convenient. Our world is very much structured in silos and our thinking is often structured this way too. When we are confronted with complexity, we tend to simplify it or even ignore it.

Let's take a step back, look at the big picture and reflect. Would you approach a customer with an offer for another banking product because your aCRM cross and up-selling analysis is predicting this right now, knowing that his creditworthiness is not great, knowing that he comes up in adverse media searches in relation to some negative news, and that he is likely to be involved in money laundering and tax evasion? Probably not. Would you be interested to know that in addition to all that, a customer may be grossly negligent with regards to his cyber threat protection, exposing him and you to serious integrity risks, or that you might even be on the verge of losing him as a customer because of that, or because of a combination of reasons? I assume you would. Would you like to know how the current developments of the financial markets impact this specific customer's profile with all his portfolios, exposures, risks and opportunities? I guess so. And do you think your customer would be interested in receiving competent and well-founded advice from you on what all that would mean from a tax or cross-border perspective if he were to change his country of residence? Yes, he definitely would. The answers seem to be clear and obvious, but nevertheless we continue to fall into these traps of irrational behaviour in applying isolated views, looking at these issues from one simplified perspective.

It is not difficult to move away from these problems though. Dynamic risk and opportunity based profiling is an integral, unified and consistent way of applying myriads of advanced ML and AI hybrid approaches in a contextual and situation-specific manner. Based on all available static and dynamic customer data, internal and external intelligence, it is not only focused on addressing one particular question or issue in isolation, but provides a 360° analytical view of the customer, on his entire profile, with all his risks, threats and opportunities simultaneously. And of course its purpose is not just to fulfil the requirements of the revised Swiss Anti-Money Laundering Act, to tick the compliance checkbox and to sigh with relief. It goes much further, taking into account the safety, accuracy and profitability of your daily decisions, reducing the risks and the threats, avoiding or reducing losses, and maximising profits.

Provide your clients with innovative tools !

Connect !

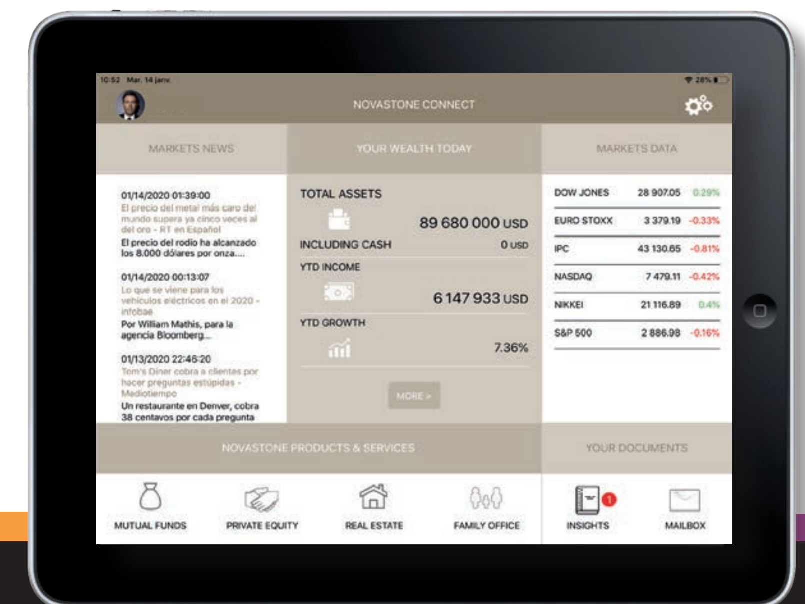
CONNECT! IS A POWERFUL DATA AND NEWS VISUALISATION APP THAT ALLOWS FOR CONTINUOUS MONITORING OF CLIENT INVESTMENTS.

Its features include:

- ACCOUNT AGGREGATION → Provide an overview of all the client's accounts
- ASSET ALLOCATION → Drill-down by asset class and view the underlying holdings
- PORTFOLIO NEWSWIRE → Monitor news that may be relevant to the client's investments
- WATCH TOOL → Enhance financial knowledge through market and sector analyses
- MESSAGING → Be in permanent contact with your client

Fully customizable, with respect both to your products and your corporate visual identity.

Connect! is available for mobile devices and includes a webviewer display for desktops or laptops.



Boulevard Georges-Favon 43
1204 Geneva | Switzerland
+41 22 319 21 11

visualcapitalmarkets.com

Nick Sohnemann
Founder and CEO
Future Candy
Interview by Frédéric Barillet

NICK SOHNEMANN: BANKING NEEDS FASTER ALGORITHMS AND CLEVER PEOPLE

The banking sector is on the move, it is now a fact. But where does it stand in terms of its ability to innovate compared to other industries? What are the consequences for business models and human resources? These are all questions we asked one of Europe's leading innovation experts.

SWISSFINANCE.TECH: IN YOUR OPINION, IS THE FINANCIAL INDUSTRY MOVING FORWARD FAST ENOUGH AND WHAT CHALLENGES WILL IT FACE IN THE COMING MONTHS?

NICK SOHNEMANN: Our company has been involved in eleven different sectors for almost a decade. Our take, over this period, is that the financial world was a little slower than others to implement innovative strategies. I would attribute this largely to the fact that the financial industry has no real history or experience of innovation. So far – even recently – no bank has organised its activities around innovation. For instance, none has an in-house Research & Development (R&D) team. Conversely, if you take the example of a car manufacturer, the R&D department has been a central part of the business for a long time. Work on new materials dates back some thirty or forty years and new business models have been developed. Banking institutions somewhat missed the boat.

Having said that, it must be acknowledged that the main incumbents have now turned the tide and are putting greater focus on innovation. Still, most of them are only in the process of integrating innovation. In this industry, it is in fact the fintech new entrants that are driving innovation. Just look at the number of start-ups! Their number far exceeds those in the automotive sector, to go back to that example. And the same is true with respect to the confectionery sector, which has barely 1,000 start-ups globally, whereas the number of fintechs stands at 8'000 just for Europe.

SFT: YOU MAKE IT SOUND AS IF THERE IS A LACK OF INNOVATION CULTURE WITHIN BANKING INSTITUTIONS. CAN SOME OF THE BLAME NOT ALSO BE PUT ON REGULATION?

NS: What is certain is that governments have simply passed the buck to the private industry. Take KYC (Know Your Client) as an example. Banks have clearly been told: "it's up to you to check your clients. We don't do it". If you want to take out a loan, the bank has to verify your borrowing and repayment capacity – not the government. It is quite understandable that financial institutions are complaining about regulatory obstacles. Moreover, the larger ones are the most impacted, fintechs generally enjoying more latitude and fewer constraints.

Paradoxically, the financial crisis of 2008 helped the emergence of fintechs. Many bankers lost their job and proceeded to set up their own businesses. Those who were laid-off tended to be on the fringes of the system, while those remaining were more streamlined, working as they had been for twenty or thirty years. The "outsiders" were thus more capable of carrying out innovation. This does not mean, of course, that nothing is happening within banks, particularly the major players, but it must be acknowledged that without fintechs innovation would have been very limited.

SFT: SINCE WE'RE TALKING ABOUT INNOVATION, WHICH OF THE NUMEROUS EMERGING TECHNOLOGIES DO YOU CONSIDER TO BE THE MOST DISRUPTIVE AND TO BE RECOMMENDED TO A BANK THAT IS UNDERGOING DIGITAL TRANSFORMATION?

NS: We have been able to identify five or six thriving technologies within the fintech ecosystem. Among these, I will mention cryptocurrencies, even if they are marking time. I would not recommend investing a lot of energy in this area because, although it is an interesting technology, it is not currently needed. We live in a world where they are no widespread trust issues and the systems in place are efficient enough to ensure the proper functioning of the contract business.
What should be closely monitored is the trend in payments. The coming months will bring many new means of payment to the market, notably payment via facial recognition. Other advances are occurring in lending and, as a corollary, risk analysis. They involve artificial intelligence and big data, with fintechs, I must say, faring better than traditional players. Finally, I would mention asset management, the characteristics of which are quite similar to loans. This is typically a labour-intensive activity in which artificial intelligence, with faster algorithms, could do a lot of the work. Asset managers tend to be very conservative and wary of new technologies, even though they are the first to make such investment recommendations to their clients. At this point, roboadvisors are still very basic but they offer much room for improvement, in particular by automating as many computations as possible.

SFT: THE FIRST DIGITAL BANKS HAVE BEEN SET UP IN RECENT MONTHS. IS THIS AN EPIPHENOMENON OR A MAJOR TREND PERTAINING TO HUMAN RESOURCES?

NS: I think that we will always need banking and we will always need bankers. Their number will definitely come down, but experts with great advisory capacity will remain essential. The linear world in which one goes to school and then works until retirement age no longer exists. People want to go to university, work, embark on an educational program in the middle of their life, and continue like that until they are 80 or 90. As such, we need more qualified advisors who can truly accompany us in our private decisions. Put differently, banks need clever staff members. Not ones that are confined to establishing ratings but ones who share their knowledge with ordinary people like us, to help us make our way in the economy.

BIOGRAPHY

Nick Sohnemann, MBA, is the founder and CEO of Future Candy, an innovation agency based in Hamburg, Germany. He is one of Europe's leading experts in the field of future and innovation research and has made it his mission to positively change and shape the innovation culture in Europe. Nick studied at the University of Westminster in London and at the Hamburg Media School. He is on a worldwide hunt for state-of-the-art methods for successful innovation.

DIGITAL BANKING

MILLENNIAL GENERATION: THE START OF A SHIFT TOWARDS DIGITAL BANKING

by Schuyler Weiss
Chief
Digital Officer
Reyl & Cie

In the digital banking revolution, the millennial generation is key.

Millennials may remember a time before the age of email, the Internet or social media, but they grew up as these technologies did, adopting and integrating them into their lives. They are the first generation to embrace – and expect – the potential of digitalization.

Making up about a quarter of the world's population, millennials are also poised to become the generation where the next big wealth transfer will occur. Millennial spending is set to overtake Generation X by 2020 and will continue to increase, shaping the direction of the world economy in the years to come.
Banks must recognize the growing power of the millennial consumer and must adapt to fit their needs. According to a 2018 Gallup study of banking in the U.S., millennials have the lowest level of engagement with their banks, are more likely to switch banks and are most likely to use both online (92%) and mobile channels (79%).

To appeal to a generation that has become accustomed to the instant and personalized nature of the digital space, banks cannot rely on the status quo. Merely creating a website or an app is not enough: Going digital means listening to millennial needs and creating solutions to drive new forms of value. It is not an option, it is a necessity.

As part of our ongoing efforts to drive improvement into the client experience, and to best position our offering, we recently ran a market research campaign within a particular segment of the Swiss population. We were able to identify three key takeaways relevant to millennial clients.

1. PAY ATTENTION TO PRICE

Offering a low, transparent cost of service is the most attractive financial service feature that our respondents identified. Cost beat out other compelling features such as service, product and user experience.

In today's society, many services are offered with no explicit sticker price. While it is important that banks are able to compete on cost, that does not mean their offering should be free. As the saying goes, "If the product is free, you are the product."
While clients may accept this condition for a variety of technology services, I would argue that it should not hold for banking.
The relationship between bank and client must be one of trust, transparency and aligned incentives. Financial services institutions should charge a fee that is transparent and which is linked to the value provided to customers.

2. STRIVE FOR EFFICIENCY

Roughly 90% of our respondents said they have less than 10 minutes per day to review their finances.
With such a limited opportunity to connect with our clients, banks must turn to technology to communicate the necessary information in an efficient but informative way. At the same time, the same technology used to enable an efficient user experience can and should be used to streamline banking operations. Banks' digital roadmaps should always strive to both improve operational efficiency and drive a more productive client experience.

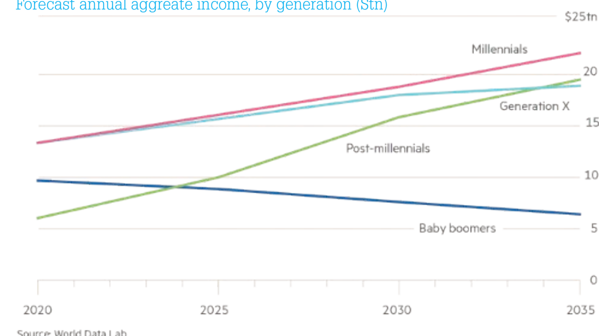
3. FOCUS ON IMPACT INVESTING

Almost half of our respondents indicated a strong or very strong interest in impact investing, the use of private capital to address social or environmental impact alongside financial return.

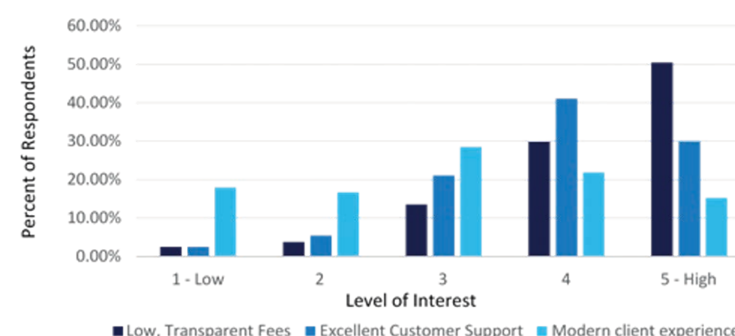
According to recent studies, millennials are the most willing generation to trade financial return for greater social impact. Digital channels have helped expand the visibility of impact investing, and with digital technologies, banks now have the capabilities to expand their distribution channels, enabling clients to participate in impact investing directly.

The Millennial generation represents the start of a shift towards digital banking. Going forward, this transition will only quicken. A portion of the millennials, given the generation's exposure to pre-digital banking, could be forgiving to banks that fail to adapt. Post-millennial generations will not be so kind. The integration of digital operations and services not only enables banks to better cater to the millennial population, it is also a prerequisite step for the banks planning further into the future.

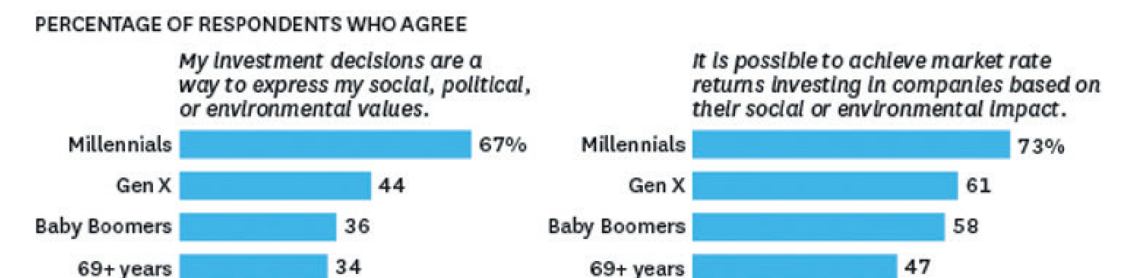
Global millennial spending power is set to overtake generation X by 2020 and will continue to rise
Forecast annual aggreate income, by generation (Stn)



REYL Market Research
Level of Attraction to Banking Features



Millennials want to have an impact
Different generations have dramatically different investment priorities.



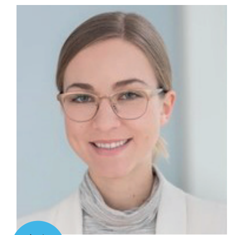
CIO BAROMETER

THE SWISS CIO BAROMETER: OVERVIEW OF EARLY STUDIES

Since 2015, the IFZ has been sounding out the investment and operational intentions of the CIOs.

by Prof. Dr. Thomas Ankenbrand
Institute of Financial Services Zug IFZ

by Denis Bieri
Institute of Financial Services Zug IFZ



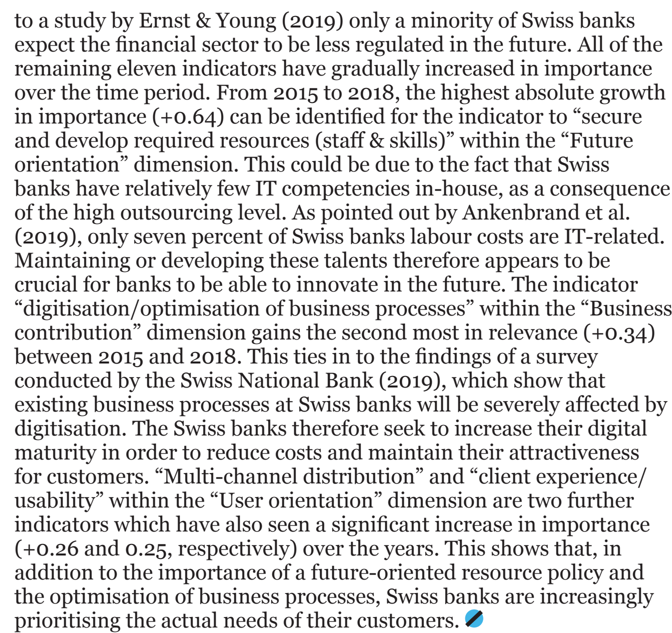
by Nicola Illi
Institute of Financial Services Zug IFZ

In an attempt to capture the current digital trends and developments in the Swiss banking market, the CIO Barometer was conducted for the third time by the Institute of Financial Services Zug, IFZ, in 2018. In particular, the survey focuses on the way Chief Information Officers or other IT responsibles at Swiss banks perceive digitisation and technological progress to be affecting their business. Besides helping to identify potential challenges posed to the industry, the results of the survey shed some light on how and the degree to which challenges are being counteracted on a strategic and operational level. In this article however, the focus is set on the developments in the surveyed banks' priorities over time[1].

The CIO Barometer is based on the IT Balanced Scorecard concept by Van Grembergen and Saull (2001) which, as opposed to focusing solely on financial targets, also seeks to develop and monitor a balanced set of non-financial measures. These include, for example, the regard for customers, processes or the degree of innovation. In the case of the CIO Barometer, four separate dimensions are applied for the analysis, i.e. operational excellence, user orientation, business contribution, and future orientation. As illustrated in Figure 1, **each of the four dimensions are supported by three indicators**, which the survey participants were asked to rate on a four-point scale according to their importance for the current year[2].

As this article seeks to highlight the trends and developments over all three surveys, from 2015 to 2018[3], a comparison of the scores given to each indicator over time provides useful insights into changing IT priorities at Swiss banks. Due to the small sample size, the different sample composition over the years, and the qualitative nature of the survey, however, the results must be interpreted with caution.

Figure 2, illustrates **the assessments of importance for the respective current years**. The only indicator which, according to the results of the surveys, has slightly lost importance over the period analysed is the "adoption of new regulatory requirements", which was given greater importance in 2015 and 2016 than in 2018. The stable and overall high significance of the indicator demonstrates the responsibility for Swiss banks to adhere to the flow of new regulatory requirements. In other words, regulation seems to have become an important part of day-to-day business for Swiss banks in recent years. This is likely to continue to be the case in the future, as according to a study by Ernst & Young (2019) only a minority of Swiss banks expect the financial sector to be less regulated in the future. All of the remaining eleven indicators have gradually increased in importance over the time period. From 2015 to 2018, the highest absolute growth in importance (+0.64) can be identified for the indicator to "secure and develop required resources (staff & skills)" within the "Future orientation" dimension. This could be due to the fact that Swiss banks have relatively few IT competencies in-house, as a consequence of the high outsourcing level. As pointed out by Ankenbrand et al. (2019), only seven percent of Swiss banks labour costs are IT-related. Maintaining or developing these talents therefore appears to be crucial for banks to be able to innovate in the future. The indicator "digitisation/optimisation of business processes" within the "Business contribution" dimension gains the second most in relevance (+0.34) between 2015 and 2018. This ties in to the findings of a survey conducted by the Swiss National Bank (2019), which show that existing business processes at Swiss banks will be severely affected by digitisation. The Swiss banks therefore seek to increase their digital maturity in order to reduce costs and maintain their attractiveness for customers. "Multi-channel distribution" and "client experience/usability" within the "User orientation" dimension are two further indicators which have also seen a significant increase in importance (+0.26 and 0.25, respectively) over the years. This shows that, in addition to the importance of a future-oriented resource policy and the optimisation of business processes, Swiss banks are increasingly prioritising the actual needs of their customers.



1 For additional information, see IFZ FinTech Study 2019.
2 One exception is the indicator "reduction of time-to-market of new products and processes" within the dimension "Future orientation" which was not included in the survey in 2015.
3 The CIO Barometer was not conducted in 2017.

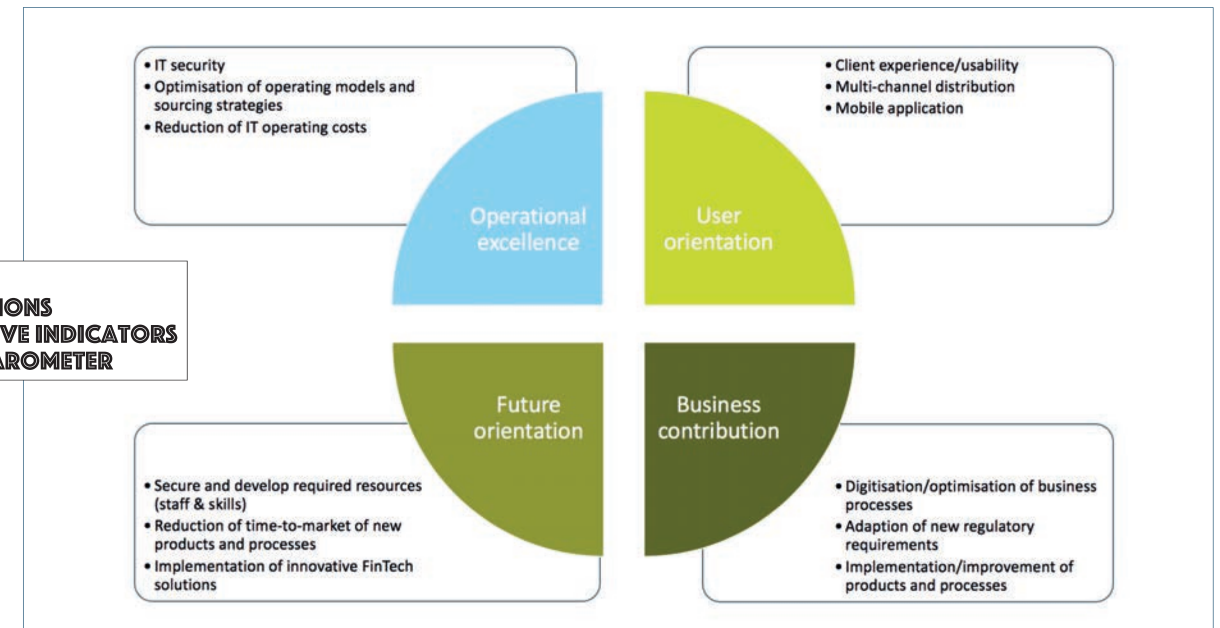


FIGURE 1
FOUR DIMENSIONS AND RESPECTIVE INDICATORS OF THE CIO BAROMETER

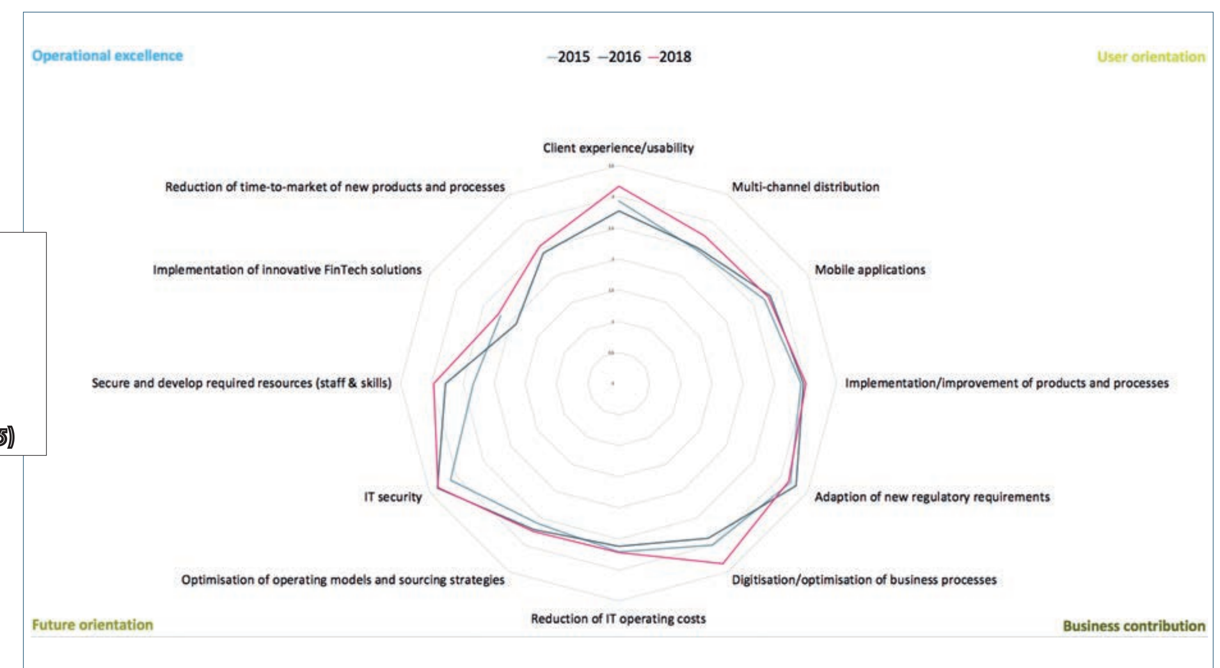


FIGURE 2
IMPORTANCE OF THE INDIVIDUAL INDICATORS IN 2015 (N=27), 2016 (N=30), AND 2018 (N=35)

References

- Ankenbrand, T., Bieri, D., & Dietrich, A. (2019). IFZ FinTech study 2019: an overview of Swiss FinTech. Lucerne University of Applied Sciences and Arts- Hochschule Luzern, Business.
- Ernst & Young (2019). EY Bankenbarometer 2019 – Zeichen der Zeit.
- Swiss National Bank (2019). Survey on Digitalisation and Fintech at Swiss Banks
- Van Grembergen, W., & Saull, R. (2001). Aligning business and information technology through the balanced scorecard at a major Canadian financial group: its status measured with an IT BSC maturity model. In Proceedings of the 34th annual Hawaii international conference on system sciences (pp. 10-pp). IEEE.

OPEN NEW HORIZONS THROUGH DIGITALISATION

In the future, successful business models in banking will be determined by intelligent use of technology and a deep understanding of business processes.

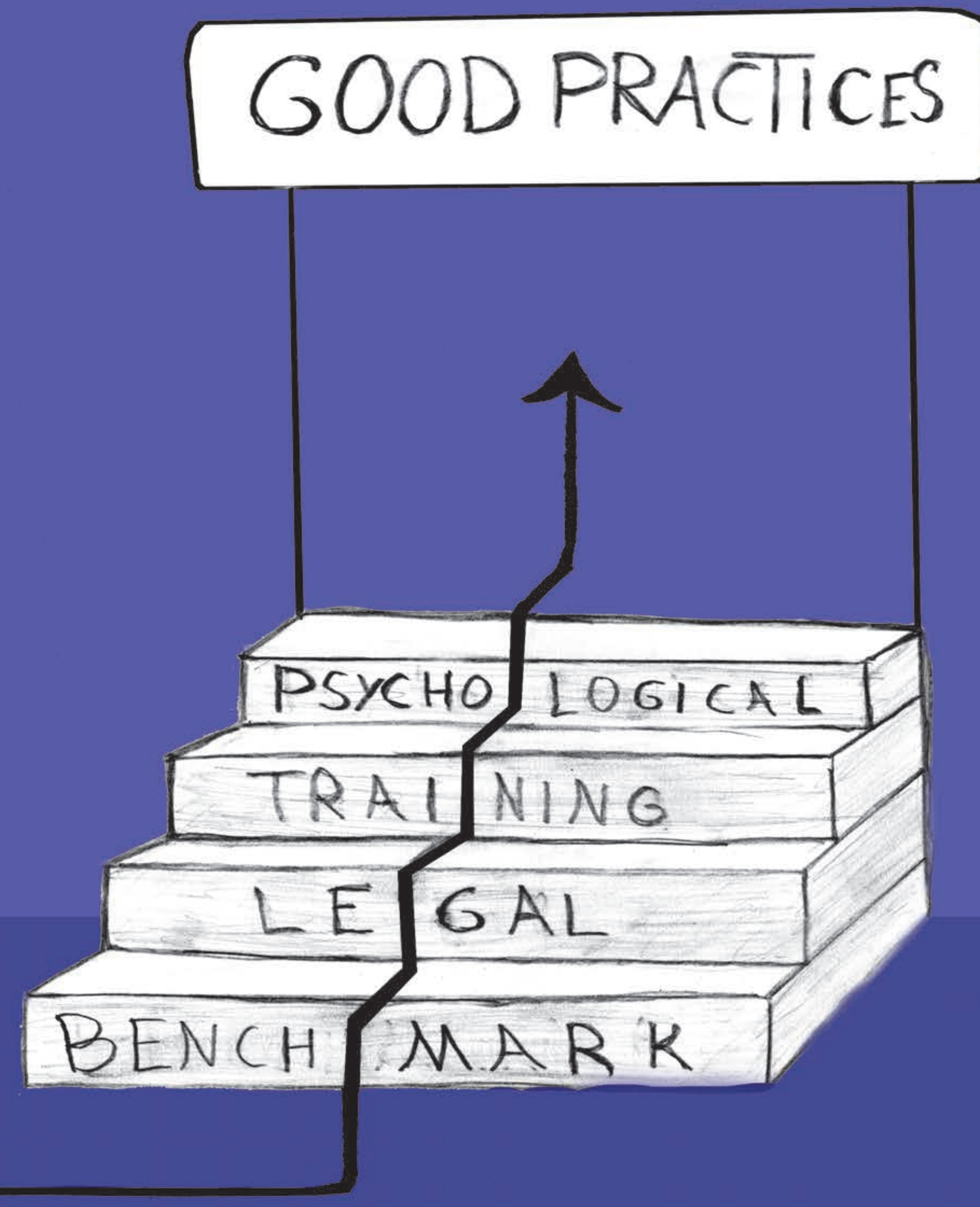
Growing cost pressure resulting from the erosion of margins, increasing compliance requirements and the digitalisation of banking are driving forces here. In this context, we offer our customers efficient and innovative IT solutions. Finnova was founded in 1974 and is one of the first fintech businesses. Our standard solution, Finnova Banking Software, is currently used by around 80 universal banks and 20 private banks. They benefit from the software's extensive functional breadth and depth, combined with the lowest TCO in the industry. Finnova's outstanding scalability and parameterisation
capability enable banks to implement their strategic requirements efficiently.

finnova.com

finnova

BEST PRACTICES

The essentials for a successful digitization



USE CASE

Valiant Bank: simplify processes, behaviors and thinking

Swiss banking is digital since many years. But why do we have this digital "backlog" accumulated. Banking is digital business and traditional banks are not yet capable to do this business with their customers on an easy, efficient and simple way.

René Kohler
Head of Information Technology and Supplier Management
Valiant Bank

One of our main objectives is to simplify the financial life for our customers. At Valiant the customers chooses the channel and we have to be prepared to fulfill their needs and requests. This is the reason for Valiant to continue investing in branches (physical channel) so we can be locally present and have a personal interaction with the customers. On the other hand many customers are ready and fit to interact through digital channels for the services of their choice - for an easy access to our products and services. This will be one of our main drivers for the future. Therefor we increase our investments into the digital interaction between our customers and Valiant.

To go on this journey we must simplify our own processes and our own behaviours and thinking. That means hard work, but it is our key to success. A first step is to encourage our employees to think open minded, to "forget" existing system boundaries and to develop smarter solutions - even if they are not "100% complete" (which would be Swiss) - but many times 80% is also good enough. This sounds easy of course, but you have to do it and you have to start the journey and you should keep ongoing.

WHAT ARE OUR SUCCESSFUL EXAMPLES OF RECENT DIGITALIZATION?

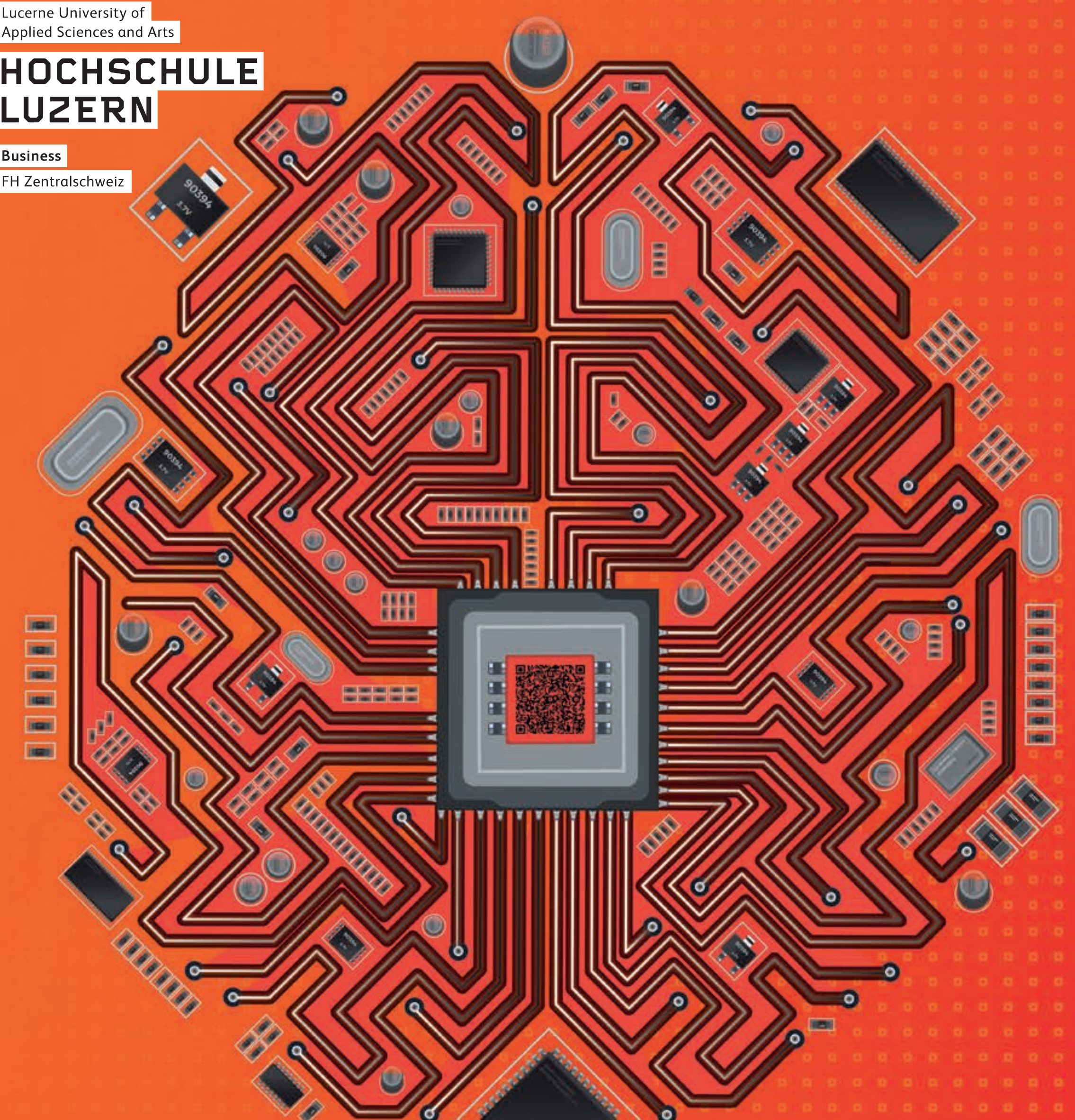
We built a "credit highway" to simplify the credit process and to guide our employees through it and to optimize and speed up decisions based on rule-sets. This includes decision making by machine and leads to faster results for the clients. To do so, you have to know your business and be ready and willing to focus and to reduce the complexity of existing processes. This means cutting of less used functions and steps. The advantage is, employees don't have to deal with unnecessary process detail and it helps as well to reduce training costs for new personnel.

Another example is "generating" time for our customer facing employees. For this client advisors it is crucial that they use their time to satisfy customers. To support this ambition we developed a simple work bench application to access all information from different systems to have a complete view of the customer. Positive lessons learned are that Users value the easy user interface and the context based links to access business processes and information. The employees gained time for new and existing clients and this leads to better client feedbacks and to more business. A further positive element is a faster development of new functionality. We certainly had to adopt our working habits to get agile over different organizations: sales, business process modelling, operation, it, etc. This was not easy in the beginning not easy, but with each new sprint it went easier and the teams worked closer together.

As the clients are ready to use smart phones and tablets for their financial business we are actually creating a new mobile app. For this modular mobile app we have the ambition to create a framework to integrate functions from different providers and to provide a seamless and easy user experience. A first step was the development of the user experience with different designs. These designs were tested with real customers and client support units. The customers were happy to be involved and their feedbacks shaped the design of the new application. This was helpful for all involved parties. A next step was to create building blocks with existing and on the market available functions.

An important step towards digitalization is to open up our it-landscape. This provides the opportunity to cooperate in eco-systems. It is a good way to integrate applications, instead of developing all functionality by ourselves or to integrate all functionality in the core-banking-system. Some technical challenges are related to integration with existing systems and services and to security-items. At the end these challenges can be solved. More important is to invest in the people to increase the know-how and to open up the mind and not to fall back in "old" behaviours.

There are plenty of other new ideas to increase the interaction with our customers and to speed up our business. The journey has just started and will continue. The only way to keep up is to adopt an agile mindset and to keep moving forward in small steps.



IFZ FinTech Study 2020
An Overview of Swiss FinTech

Editors Prof. Dr. Thomas Ankenbrand, Denis Bieri, Prof. Dr. Andreas Dietrich, Nicola Illi

Institute of Financial Services Zug IFZ
www.hslu.ch/ifz

Sponsors

LEGAL

"Navigating in uncharted waters: a legal perspective"

Switzerland is generally considered as an attractive base for innovation in the Fintech sector. The favorable legal and regulatory environment accounts for much of what is more than a feeling.

Tal Schibler
Avocat
Schibler Hovagemyan Avocats

The word Fintech (Financial Technology) refers to software and other modern technologies used by businesses that provide banking and financial services. This definition itself indicates that a revolution is in the making and that things will never be the same in the future in the rather conservative financial world. While other jurisdictions are studying how to incorporate innovations in the Fintech area in their legal system, Swiss government and regulator consider Fintech to be a promising development in digitalization and therefore intend to keep and further improve Swiss relatively innovation-friendly regulations. The intention is therefore to integrate legal issues linked to the Distributed Ledger Technology (DLT), the blockchain and related technologies, in the existing legal framework. While necessary amendments will adapt, and hopefully improve, the current set of laws, there is yet no plan for a "blockchain act", nor other specific legislation addressing issues linked with innovations in the Fintech sector. Nor is it planned to have a specific regulatory body or authority dedicated to the supervision of Fintech companies and related businesses.

However, Switzerland has introduced in the recent years 3 sets of rules within the existing banking legislation in order to promote innovation in the financial sector. The novelty relates to i) the introduction of a longer period for holding monies on settlement amounts without limitation regarding amounts (eg. for crowdfunding projects), ii) the creation of an innovation space ("sandbox") allowing companies to accept deposits up to 1mio Swiss francs without a banking license, and iii) the introduction of a Fintech license suitable for businesses necessitating the taking of deposits.

With regard to territoriality, Swiss regulations on financial services do not apply to businesses incorporated in other countries, but new rules will provide that financial services providers outside Switzerland and acting cross-border will be subject to Swiss rules and may even be required to register in Switzerland. Regarding anti-money laundering regulation, the Swiss law applies only to financial intermediaries having a physical presence in Switzerland and thereby does not apply as such to foreign businesses such as payment service providers.

Most players in the Fintech industry are developing solutions for the financial market sector such as payment services, deposit and lending, analytics, investment management, banking infrastructures or cryptocurrencies. Many have associated with or joined interest groups created with aim to coordinate the common interests of Fintech oriented organizations and projects. Some traditional financial institutions have also partnered with Fintech companies in order to develop innovative solutions, thereby creating real opportunities for start-up companies to be part of that race.

As usual, techniques develop much faster than laws and regulations can adapt. Libra, a new currency which seems to be standing between technology and decentralized organization is a good example of how rules are used, and will need to be adapted to a new situation. Libra was created and registered in Geneva in the commonly used form of an association. It will be regulated in Switzerland and supervised by FINMA which will have to assess both the Libra association and the Libra token. From a monetary point of view it seems a currency with a currency basket and a controlled float, but from a regulatory point of view it raises difficult legal issues. Since Libra has its own denomination that stands in no set relation to other currencies, according to FINMA's classification the currency would be considered as a payment token. However, as Libra simultaneously constitutes a claim on a currency basket it could also be classified as a foreign exchange derivative.

So much for legal uncertainties and loopholes: Libra is in the process of being created and labelling will come later!

Does the lack of regulation create a risk for users? In Libra's case, as well as for other cryptocurrencies, the technology itself is no guarantee that the new currency will be used judiciously. In this race for innovation, speculation may be an irresistible temptation for many actors. Success stories such as Bitcoin have whet appetites which more than often seem to prevail over pragmatism. Blockchain is repeatedly praised for its absolute security. The future will tell whether the technique is safe enough to stop digital geniuses from getting around the rules, but what is certain is that the cryptocurrency market creates an ideal terrain for activities such as money laundering and the financing of illegal activities.

The reality is not only that we are going to a new era, but that we are already there, and Fintech solutions impose on us rapidly. Financial markets like other businesses are quickly incorporating innovations and we all have to adjust. As described above, the law is adapting slowly and empirically and may therefore not be of much support for those entering the new age without experience. For the lay persons, genuine common sense should dictate the positioning towards novelty. Rapidly the successful new technologies and solutions which will set the new standards will gain the necessary trust which is a key word, in particular in the financial domain. Meanwhile, relying on a mere proof on concept may not be enough to adopt the proposed solutions. Trust is built over time until the firm confidence based on understanding, credibility, reliability and ability to provide what is expected. While the new era will definitely bring revolutionary solutions, we may however continue using our human brain and skills in appraising the changes; as in the use of robot-advisors where the advice of a human counsel may still be advisable, if not necessary: probably the natural transition to an all-digital world.

BEST PRACTICES

TRAINING

The challenge of training for a digitalized future

Frédéric Ruiz
Directeur adjoint
Institut Supérieur de Formation Bancaire / HES Kalaidos Romandie

What is really digitalization and what will it imply for the workers of the financial and banking industry? While experts, consultants and futurists alike ponder the question at length, filling up the airwaves and producing a sea of ink, we may want to start our reflection with the admission, for intellectual honesty's sake, that we are not entirely sure.

What we historically observe, when a disruptive technology becomes all-encompassing, is usually two sorts of antagonistic and somewhat extreme reactions: on the one hand, some will follow a business as usual approach, exhibiting a perfect manifestation of the freeze response (whenever I call my doctor and she is not at the office a pre-recorded message politely proposes that I send a fax. At least it isn't a telegram). Others will adapt an end-of-the world-as we-know-it approach, mentioning apocalyptic job reductions, 24-hour a day availability requests from clients or other pitfalls that come with technologies such as artificial intelligence, distributed ledger technologies or quantum computing.

The fact of the matter is, the truth will certainly sit in between these two extremes: electricity, arguably the most potentially disruptive technology ever invented for its ability to erase the natural and fundamental cycle of night and day, did have a strong altering impact on the usual working schedule, however it did not produce a generalized round-the-clock 8-hour shift economy.

Digitalization's impact should not be belittled, given the unique characteristic of this technological revolution which we can illustrate with this simple example. When engines and cars replaced horses as the mainstream means of transportation, blacksmiths lost business and jobs and had no choice but to reinvent themselves as car factory workers. It was a challenge, but a moderately difficult one, principally involving acquiring new physical gestures and movements. Training had the means to bridge the skills gap easily.

Digitalization makes the task of training quite harder. How does one retrain an operator in an office, (who probably left behind mathematics and other complex scientific matters at the age of 15or 18) into an AI computer programmer - not to mention that we can assume that the person was probably already struggling with the subject then?

Only training and continuous learning makes the adaptation to change - new technology for instance – feasible. In the particular instance of digitalization in the banking and financial industry, learning

and development has become even more crucial, given the particular challenges that come with the technological shift.
Indeed, these challenges require us to reach beyond the mere acquisition of technical skills and knowledge and include that of new and more complex interpersonal skills. As an example, consider the impact of digitalization in the client relationship function and one among many implications: as more and more complex tasks can now be done through digital means (securing a loan, purchasing a product), the personal relation with the client becomes rarer, more complex and focused on "moments-of-truths". Face-to-face meetings will need to be more efficient, more meaningful, more impactful and more concentrated as the client advisor will have fewer chances to make a positive difference.
Technical skills will also need to be revamped. Technologies such as data & analytics and artificial intelligence make it possible to create and distribute an ever increasing array of products and services in a very efficient and targeted manner, without any necessary human interaction: robo advisors, for example, have the ability to manage diversified investment portfolios and make automatic adjustments to client portfolios. In the future, bankers will therefore be solicited for their advice solely in the field of complex products, for instance alterative assets or structured products, as the core, more simple portfolio, will be managed by a machine. In parallel, considering and addressing the client's needs with a more holistic approach will be the main path to adding value to the client relationship– and maintaining margins and revenues: taxes, credits, real estate, retirement plans and legal issues, between others, are all areas which will need to be developed. An important upgrade in the technical toolbox, both financial and non-financial, will be necessary.
Digitalization will also translate into very different manners of organizing and carrying out work, which will require proper and targeted training in order to be assimilated and implemented quickly: building efficient teams, working in a horizontal and flat manner, managing change, creating collective intelligence or tackling complex (complicated and dynamically moving) issues are some examples that come to mind and which are not genetically acquired characteristics of bankers.
IT skills, but also financial ones; peripheral hard skills (legal, credits, corporate finance); interpersonal skills; leadership and self-leadership skills: the areas where filling the gap is already necessary are as numerous as they are diverse.
While we are not yet clear and unanimous on our vision of a digitalized banking and financial industry, we may all agree on the fact that considering solely the technical aspects of the changes brought about by digitalization (understanding the functioning of the blockchain) and preparing to embrace them, while neglecting the second and third concentric circles of effects, would be a very consequential mistake, given its potentially considerable impact on the industry's future collective profitability and strategic sustainability, but also on that of its workers - managers included.

PSYCHOLOGICAL

Digital transformation: a good decision a day keeps the panic away

"Change management", "agilisation", "design thinking", "collective intelligence", "horizontalisation of management", "digital leadership", all these terms come to mind when talking about digital transformation in general, but also, and more recently, about the integration of artificial intelligence, blockchain technologies, and so on...

Aline Isoz
Director Strategy
and Digital Transformation
Mazars Switzerland
Independent board member

According to the experts (of whom I am part, since I am writing these lines), the prerequisite for the transformation of a business model resides in tools and methodologies that will serve the elasticity of the company, functioning just like a suppository that enables the passage of molecules essential to the healing of a patient. As a good mother, I had the opportunity to administer suppositories to my children when they were very young, for the simple reason that, before a certain age, they could not "swallow the pill". And it is rather funny, to continue along this metaphor, to note that as soon as children become old enough to be aware of the discomfort inherent to the inoculation of a foreign body through the most intimate orifice of their anatomy, surprisingly, the era of the suppository comes to an end!
The same goes for today's companies: the blessed age of the almighty, omnipotent, all-knowing, all-powerful boss/dad who, by a simple look or gesture, could convince his employees of the need for a suppository is over. Employees (and I include managers) are perfectly aware of the existing pain. Indeed, it is often they who feel the first symptoms. Forcing them take some medicine without addressing the root cause of the pain is thus difficult... Just like a mother, management is responsible for the framework, decisions, indicators and good running of a company, for the vision upon which the company operates and for the action plans necessary to achieve it. In addition to management, the Board of Directors (the father), must validate these principles and make available the resources required to achieve them, intervening physically in the company only at key moments, most often in times of crisis or to praise performance.

Whatever the theories of change, "agilisation" and other beautifully packaged placebos you may come up with, faced with a deadly virus, few people will follow you in the idea of treating it with cucumber soup or, to go back to my earlier metaphor, suppositories... Most companies that undertake this type of treatment nowadays actually suffer from the same, contagious, virus: lack of courage.

This lack of courage, which contaminates all levels of a company, is evidenced by endless meetings that result in no decisions, by emails that everyone copies, by press releases that no longer communicate anything, by employees who end up keeping silent about their suffering, by people unable to make any decision…It results in sick leave or resignation (with the most resistant employees preferring internal sabotage by practising active presenteeism), in management instructing consultants to make diagnoses that no one will finally take into account (or even to recruit new profiles who will leave fairly quickly "for lack of having managed to integrate" or for "strategic differences of opinion"). As for the Board of Directors, the step from collegiality to cowardice is sometimes only too easy to take.

Digital transformation is not a matter of tools, nor of methodology, and even less of technology. It is a strategic vehicle that will help ensure the company's sustainability in a rapidly changing world. But only ONE strategic vehicle amongst others. The ability to define a vision, to rethink the business model and to make the decisions that allow the implementation of these elements are the determining success factors for a company in the digital age and will continue to be so in the age of artificial intelligence – or any other current and future industrial revolution for that matter.

So, before wanting to put your employees and company on self-medication drugs, start by sitting at their bedside. Where does it hurt? How long ago did the pain begin? Why did you not see the problem sooner? What is your responsibility? How can you change the environment to make employees feel better? What is their first need? And the list of questions goes on. You may be surprised to find that it is often sufficient to go back to basics: consideration, common sense, timely decision-making, warnings when necessary, and above all, a clear direction.

SWISSFINANCE •TECH

#01
April-June 2020

Information technologies in the finance industry

edited by

https://swissfinance.tech/