

# .experience

A magazine by ERNI  
2/2020

## How financial service providers fend off the value vampires



**Focus: Banks and  
insurance companies**

Focus of this issue: Banks and insurance companies

**Boost  
your  
digital  
business.**



Disruptive trends:  
How to successfully  
fend off value  
vampires

4



RPA: The  
virtual  
temporary  
colleague

21

Guest article by  
Prof. Dr. Andreas  
Dietrich: How  
digitalization is  
changing the  
banking sector

16



Blockchain:  
Concatenating  
data

25



Digital Maturity  
Fitness Check:  
Seeing the entire  
forest and every  
single tree

37

# BANKS AND INSURANCE COMPANIES: CORONA AS A WAKE-UP CALL

**Andreas Gisler**  
CEO ERNI Group



The global COVID-19 pandemic is also leaving its mark on banks and insurance companies. A recent study, for which data from almost 92 retail banks and banking groups in 22 European countries were examined, expects that the income of the institutions will fall by an average of 20 percent in the current financial year. One in eight banks could even fall into the red.

The insurance sector is also severely affected. According to a survey of 30 board members and senior representatives, 84 percent of those surveyed expect their new business to decline as a result of the corona pandemic. 57 percent even fear a sharp decline. Insurers are pessimistic, especially with regard to life and vehicle insurance. Estimates suggest that the loss for the global insurance market could reach the enormous sum of four trillion US Dollars.

At the same time, during the lockdown phase, financial service providers recorded high growth rates in online banking, contactless payments or the conclusion of digital policies. Video conferencing and working in home office have also become a common occurrence for them. The sudden crisis has hit the nail on the head in that industry: the usually cumbersome customer contact. Forrester's market researchers have found that many companies are seriously neglecting communication with their customers. In this issue of our magazine, Prof. Dr. Andreas Dietrich from the Lucerne University of Applied Sciences and Arts asks what bank customers really expect from institutions today.

Taking health insurance companies as an example, we also examine the deficits in the emotional approach to customers, and in the cover story we take a detailed look at the disruptive trends in the financial services business. After all, clever "value vampires" with innovative business models and a compelling customer experience have long since set out to beat the traditional banks and insurance companies to the punch. The corona crisis is accelerating this development as a catalyst.

And it is a wake-up call to consistently push the issue of digitalization in the industry. In this issue, you can learn how technologies such as artificial intelligence, block-chain, software robots and mobile web apps have what it takes to fundamentally change the financial sector in the coming years. Find out also how ERNI can support you in digital transformation with agile methods.

During the pandemic and also in the post-corona period, banks and insurance companies are facing huge economic challenges in an unprecedented way. On the other hand, there are many opportunities for them to realize a closer relationship with their customers and optimize their own processes with the help of innovative technologies. These should now be used courageously. I wish you many new insights as you read this very special .experience edition.

# DISRUPTIVE TRENDS: THIS IS HOW TO FEND OFF VALUE VAMPIRES SUCCESSFULLY

by Andreas Sommer, ERNI

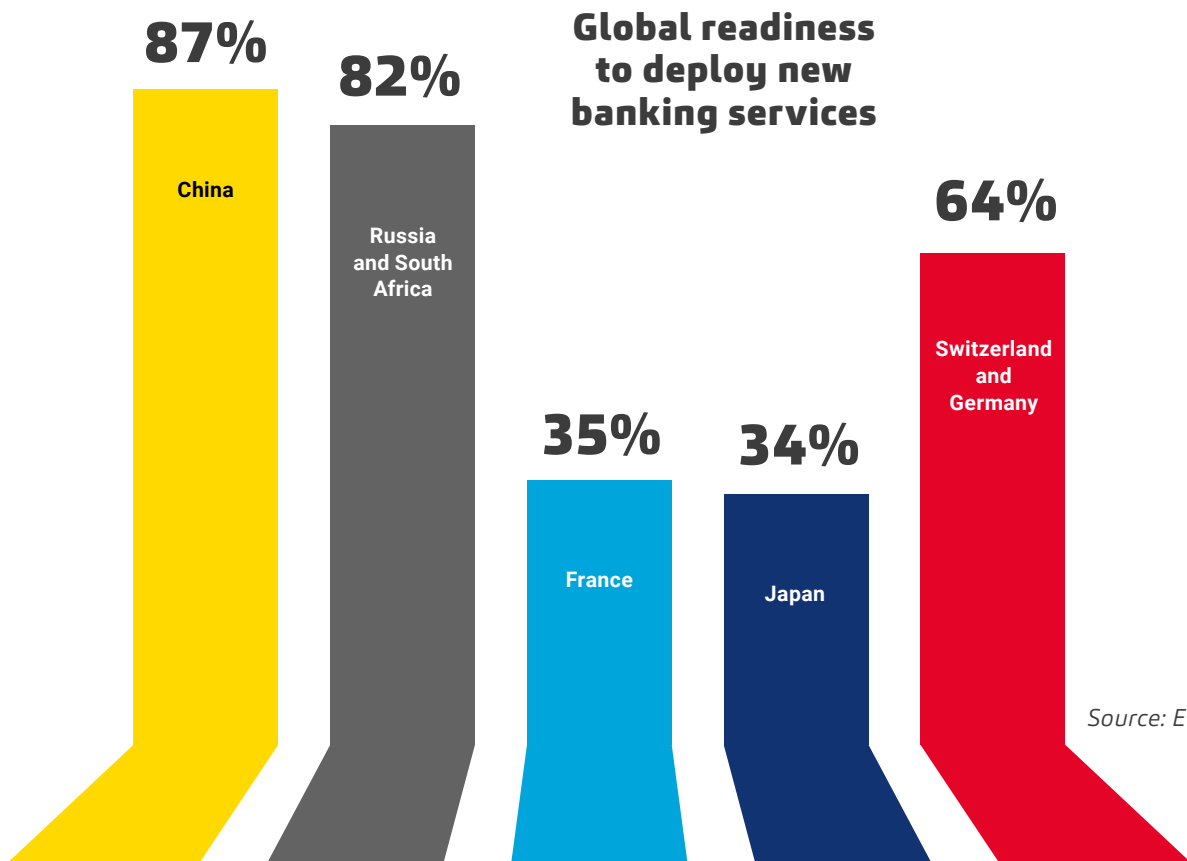


**Michael R. Wade had probably just seen the film classic Dracula or the horror flick Eclipse when he coined the term “Value Vampire” in connection with the digital disruption of our days. The professor for innovation and strategy at the IMD Business School in Lausanne, Switzerland, uses it to describe young companies that are destroying existing business models without mercy: “They offer their products or services extremely cheap or even free of charge and thus suck out the profit pool, which leads to shrinking market shares for the established providers.” At the same time, these startups also convinced consumers with a better customer experience and innovative services.**

The number of young companies offering financial services of all kinds is now estimated at around 5,000 worldwide – three years ago it was only 2,000. These FinTechs in the banking sector and InsureTechs in the insurance sector usually specialize in very specific lucrative sub-sectors such as credit card business or motor vehicle policies.

“With this strategy, they attack the classic financial service providers exactly at the point where they are still making money,” says Andreas Sommer, Value Stream Leader Financial Services at ERNI Schweiz AG. As a result, their existing business models were functioning less and less. From 2017 to 2019 the proportion of consumers worldwide, who are already taking advantage of challengers’ offers – according to a recent study, almost doubled from 33 to 64 percent.

Particularly the Chinese and Indians are most open to the new banking services – in each case 87% already use them. In Russia and South Africa, the use of these services is also very pronounced, with 82% each. The French (35%) and Japanese (34%) are at the bottom of the league. The Swiss and Germans are in the middle range with 64 %.



DISRUPTIVE TRENDS

### Destruction of proven business models

According to a forecast, the FinTechs, for example, are expected to tap into around 14% of the revenues of traditional banks in global payment transactions by 2025. "In the insurance industry, the situation is similar; here, too, new providers are driving the disruption forward," adds Patrick Wilhelm, Principal Consultant Global Services Lead Innovation & Digital Business Consulting at ERNI Switzerland AG.

Whereas the digital attackers of the first phase usually only offered simply structured and quickly arranged products such as liability and household insurance, they are now increasingly pushing into the automobile and health insurance market.

"Not all founders with clever business ideas are value vampires and destroy the business of the established providers".

"If we think of self-driving cars, which will probably cause fewer accidents, this will reduce the need for insurance policies covering all aspects of the vehicle, but will be much more individual," Wilhelm expects. New specialized competitors could possibly meet these needs better than traditional all-round providers.



### Driving your own digital change forward

Not all founders with clever business ideas are value vampires and disruptively destroy the business of established providers. Some also complement other businesses and are therefore very suitable for cooperations. "In order to effectively counter the attacks of the new competition, it is important that financial institutions and insurance companies themselves focus more on the customer and drive their own digital change," the two consultants also recommend as an effective antidote.

But this kind of approach has not yet been enthusiastically received everywhere. Some established companies are still hesitant to open up to new business models – but "the pressure will increase". Many banks and insurance companies also lack the will to change and the willingness to deal with new things. That is the biggest challenge.

Analysts predict that the industry will experience significant changes in the future and "a perfect storm of market forces". Why? They see the reasons for the tough competition primarily in rising operating costs, a changing risky landscape and a flood of new technologies, but especially also in changing customer expectations.

Patrick Wilhelm and Andreas Sommer also agree with this. "Since today's customers are now often on the move with their digital devices, they expect advice and answers around the clock, seven days a week," they know from experience. But consumers also appreciate personal contact – "just not behind bulletproof glass" – but where it can be easily integrated into their everyday lives.





# 80%

of consumers are already taking advantage of offers from the neobanks or plan to do so in the next three years.

### New opportunities through platform economy

However, dangers for the established financial sector do not only lurk from the young challengers. According to the current "World Retail Banking Report 2019", 75 percent of the more technically savvy customers are already using at least one financial product that comes from a so-called BigTech such as Apple, Google, Amazon or Facebook. More than 80 percent of consumers, who are likely to change their bank this year, are already processing payments through these neobanks, using their card offers and bank accounts, or will do so in the next three years.

In some countries this is also facilitated by the new EU Payment Services Directive (PSD2). Since last year, it has required banks in this economic area to provide third parties with secure access to their systems, for example to view account data and initiate payments. This enables financial service providers from outside the industry to create digital platforms on which both their own products and those of external service providers can be used to offer a comprehensive range of services. Patrick Wilhelm is convinced that "This enables them to retain customers more successfully".

However, the legally required interfaces, which must be provided by the institutions, only allow for limited innovation. The key to success therefore lies in even stronger collaboration: Banks and insurance companies enable newcomers to access their broad customer base and use their innovative services, apps and applications to do so. A win-win situation for all parties involved. In doing so, they go beyond the requirements of the PSD2 directive and take a big step towards Open Banking. The prerequisite for this, however, is that the solutions of both sides are compatible with each other.

### Taking unusual paths

In the financial world, the ecosystems, that are widely propagated in this context, will not emerge overnight. However, if innovative strength is developed and growing partner networks are established, the established players will also have greater opportunities to further consolidate their still existing position of trust and to survive in the long term in a highly competitive financial services business. "But this requires the will to change and the willingness to take unusual paths," says Patrick Wilhelm.

As an example from the insurance industry, he cites the Swiss insurance company "Die Mobiliar", which focuses on "living and mobility" and participates in a platform where advertisements for apartments and vehicles are placed. In this way, it is possible to early identify what motivates customers and what they expect from an insurance company.



# API BANKING GETS THE MARKET MOVING



According to the latest “World Retail Banking Report”, financial institutions worldwide are at the beginning of a fundamental development towards integrated marketplaces and platforms that offer customers both financial and other services of all kinds. To the end, the Open Banking approach with Open X will result in a more effective, structured form of cooperation – made possible by standardizing the Application Program Interface and by sharing knowledge gained from customer data.

These APIs are the connectors of the digital world: they break up monolithic systems and create connections by enabling the exchange of data and logic between independent IT applications. A modular software architecture creates the best conditions for traditional banks to continue to keep the reins in the future. The modular character offers the necessary flexibility for an individual roadmap in the new API banking.

Another example is IKEA. The Swedish furniture store, in cooperation with the largest Swiss reinsurer Swiss Re, now offers insurances – all of course digitally via its own website. Claims reports can be entered on Swiss Re’s digital platform Iptiq. This white-label solution for property, casualty, life and health insurance can easily integrate into its offering brands such as IKEA.

## Improving also internal processes in a sustainable way

But not only the digital customer experience will continue to change in the coming years, internal processes will also be reorganized. Technologies such as cloud computing, artificial intelligence (AI), machine learning or the blockchain will help in this. “The complex business processes, diverse customer inquiries and large amounts of the most diverse data in the financial sector are virtually challenging automation,” the two ERNI consultants are well aware.

However, they do not always and under all circumstances recommend that every new technology should be used without testing. Instead, they say, it always depends on the specific individual case and the examination of what is useful and what is not. “This is exactly where we see our strength and this is where our expertise lies,” emphasizes Andreas Sommer. As technology experts, who advise in a manufacturer- and product-neutral manner, we sit down with our clients and jointly consider which instrument and which technology can be the right one for which goal.

One example is Robotic Process Automation (RPA), which has also been gaining ground in the German-speaking world among the financial services sector since 2018. Almost all larger companies now use RPA to automate transactional mass processes where the process-supporting IT systems are not sufficiently networked. This particularly affects the areas of operations finance, accounting and human resources. With increasing cognitive and natural language capabilities, this technology is now also suitable for more intelligent forms of process automation.

### Getting innovation processes up and running

ERNI specializes in supporting traditional systems and companies in the digitization process and develops models with them to initiate an innovation process - from the first preliminary discussion to practical implementation. "We work out a strategy together and rely on interdisciplinary cooperation to bring new solutions to the market quickly and cost-effectively," says Andreas Sommer.

And Patrik Wilhelm adds: "We help to create a culture of innovation, to reposition and adapt an organization". The approach is always individual and customer-oriented. Where do we currently stand as a company, where do we want to go and how can we achieve this? This triad of questions precedes every new beginning.

And so it also happens, that a customer with a comparatively low volume of forms is advised against introducing an RPA. "Because the costs would be much higher than the achievable savings," explains Wilhelm. "But we want our clients to develop positively and not become victims of value vampires." This is why the consultants apply their many years of industry experience as well as their innovative strength and methodology in their work – in line with ERNI's motto: Boost your digital business.

## Banking Trend Map: Money transactions of the future

Negative interest rates, pressure on margins and consolidation pose major challenges for financial institutions worldwide. The ongoing phase of negative interest rates is increasingly burdening earnings, the costs of implementing regulatory rules and compliance efforts continue to rise, new banks are gaining market share, and in the competition for new payment systems the large technology groups are ahead of the competition.

For retail banking, Prof. Dr. Andreas Dietrich of the Institut für Finanzdienstleistungen Zug (IFZ) has compiled a current "Banking Trend Map", which uses the example of Switzerland to compile the foreseeable developments in this decade. It is based on megatrends from the five areas of society, economy, politics, law, technology and ecology. They describe overarching, long-term and substantial changes in structures, processes, values and attitudes that will result in specific retail banking trends. They describe those changes that will influence future developments in a time frame of approximately five to ten years.

## Megatrends in society

For years, demographic change and its effects have been an issue that affects the entire economy. The megatrend individualization also has an influence on companies' business policies. Customers increasingly demand individually tailored services, personal advice and support. Constant availability is almost a matter of course.

Collaborative or Sharing Economy means, that products, contents or knowledge are shared. This concept is now part of the business model of many young companies. The megatrend of re-localization is, in contrast to globalization, in all areas of life. In an increasingly chaotic world, the immediate environment and local products take on a new meaning.



## How does this affect retail banks?

The power of the customer increases. More important than ever is the customer experience. This also requires new channels of communication with the customer. As well as products and services that support them in the financial management of their individual phases of life in line with their needs. The customer journey is becoming more complex, with more and more contact points to deal with. More self-services and the use of digital assistants are becoming part of everyday life. For retail banks with a predominantly local focus, however, a return to proximity and region is also an important success factor.

### Economic and legal megatrends

The economic and political-legal environment is facing major changes. In addition to the megatrend globalization, the profound structural change caused by the influence of new technologies, digitization and automation and the associated change in the world of work is a very important topic.

Technological innovations are becoming faster and faster, product life cycles are becoming shorter. This increases the pressure to develop new products and services over and over again. New ecosystems and the platform economy are also a megatrend of high importance, which is related to the Collaborative Economy.

### How will retail banking be affected by this?

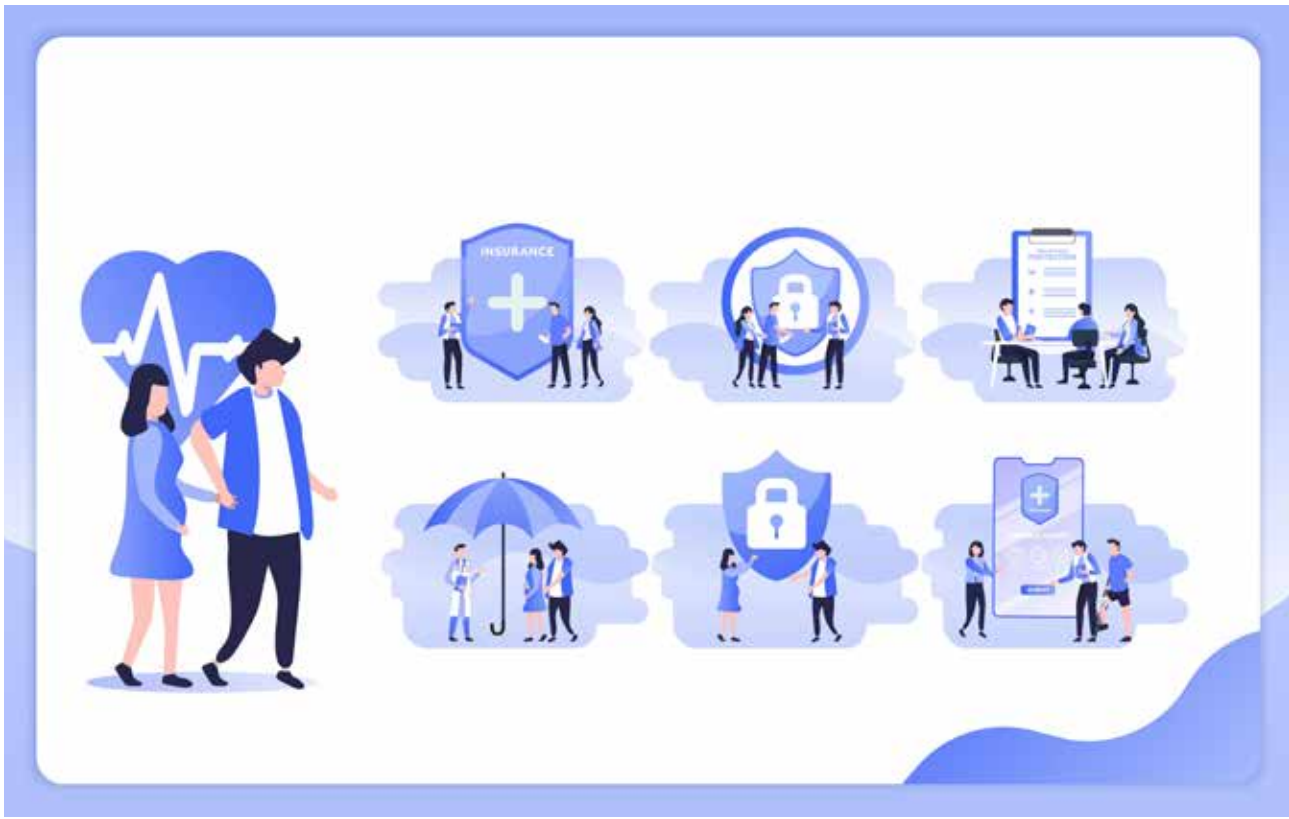
New Work is an important buzzword in this case. New job profiles are emerging, but previous activities are also becoming superfluous. The banks must also adapt to this. The increasing pressure to innovate does not bypass the financial sector and poses major challenges for banks, which have been rather hesitant about technological innovations until now. Thanks to Open Banking, the second edition of the EU Payment Services Directive (PSD2) and API banking, cooperation and new ecosystems are becoming increasingly important. Even though PSD2 does not yet directly affect Switzerland, open interfaces, the connection of FinTechs and the platform economy are also relevant here.

### Megatrends in technology and ecology

The development of various technologies such as Artificial Intelligence (AI), Blockchain, Internet of Things (IoT), Data Analytics and digitization in general are changing market and corporate structures, processes, communication channels, services as well as the values and attitudes of people in the long term and substantially. Another megatrend, the problem of resource scarcity, climate change or the increasing demands for sustainability are central and are currently coming back into focus.

### What will this change mean for retail banking?

Digitization opens up opportunities for more personalized offerings, new or better services, more efficient processes and new fields of activity for financial institutions. Mobile devices serve as advisors and points of sale, while bots and messenger services allow cost-effective communication around the clock. Mass customization is used in the banking business as well as tokenization using blockchain, virtual reality or cloud banking. Cyber security is a central challenge.



**Future trend:  
Insurance as a  
digital companion**

The research department of the insurance giant Allianz has taken a look into the future of its own industry and predicted in a study what the insurance companies and their offerings will look like in 2029. According to the study, by the end of the decade the focus will no longer be on risk management, but on risk prevention. The basis for this is an increasing amount of data available in all areas.

### Ever more precise risk forecasts

“Self-learning machines and artificial intelligence enable more accurate data analysis and thus more precise predictions of risks. Policyholders themselves are also increasingly turning to technologies that prevent risks,” the study expects. Examples include fitness trackers that warn their wearers, that their heart rate is unusually high. Or clever software in cars, that alerts the driver to objects or people in the blind spot, thus preventing accidents. In the smart home, the owner is notified of a fire hazard in good time so that fire damage can be avoided in the first place.



### Usage-based insurance products

Another future trend is usage-based insurance products, for example in the area of motor vehicle policies. Here, telematics permanently measures a customer's driving behavior, making it possible to offer lower premiums to drivers with a lower risk or reward changes in behavior.

With the help of sensor data in the Internet of Things (IoT), parametric insurance policies are also possible, in which the payment of the sum insured depends on whether a previously agreed threshold value – such as the amount of precipitation in an agricultural area – is exceeded or not. With the rollout of the new 5G mobile phone standard in the next few years, either in the field or in the campus networks of large company sites, it will be possible to integrate a large number of new IoT devices, whose data can then be analyzed in the cloud with the help of AI.

**Better customer experience**

With the emergence of new competitors from the InsureTech and BigTech environment, competition in the insurance industry as a whole is likely to intensify further by the end of the decade. Changing needs of policyholders will also contribute to this. "Customers want faster, simpler digital purchasing or even claims reporting processes. The modern policyholder expects not only to be able to take out an insurance policy with a single click on an individualized interface, but also to be able to purchase related services," the analysis states.

In the future, such platforms will be just as much a matter of course as personalized, tailor-made insurance protection. If an insurance company is better able to assess the needs of a customer on the basis of his history or behavior, it will be able to put together individual service packages. Instead of standardized and inflexible policies, two people of the same age but with different lifestyles will have completely different insurance offerings. And if the customer's life situation changes, the insurance cover will adjust automatically – without any human intervention.

Self-learning machines and artificial intelligence enable more accurate data analysis and thus more precise predictions of risks.

**Individual policy for all risks**

Instead of having several insurance policies, as is the case today, in the future people will have only one risk partner who covers all their risks in an individual policy. However, the creation of such highly complex insurance products requires the cooperation of a number of specialized players from very different sectors.

In the future, therefore, more and more value-added networks and ecosystems will be formed in which insurance companies cooperate with other market players. For example, with car manufacturers, who constantly evaluate their customers' driving behavior, or with fitness centers and health insurers. Tomorrow's insurance will thus become a digital companion that increasingly understands its customers and their needs and can offer solutions tailored to their needs.

DISRUPTIVE TRENDS



**Andreas Sommer**  
Value Stream Leader  
Financial Services  
[andreas.sommer@erni.ch](mailto:andreas.sommer@erni.ch)  
ERNI Switzerland AG



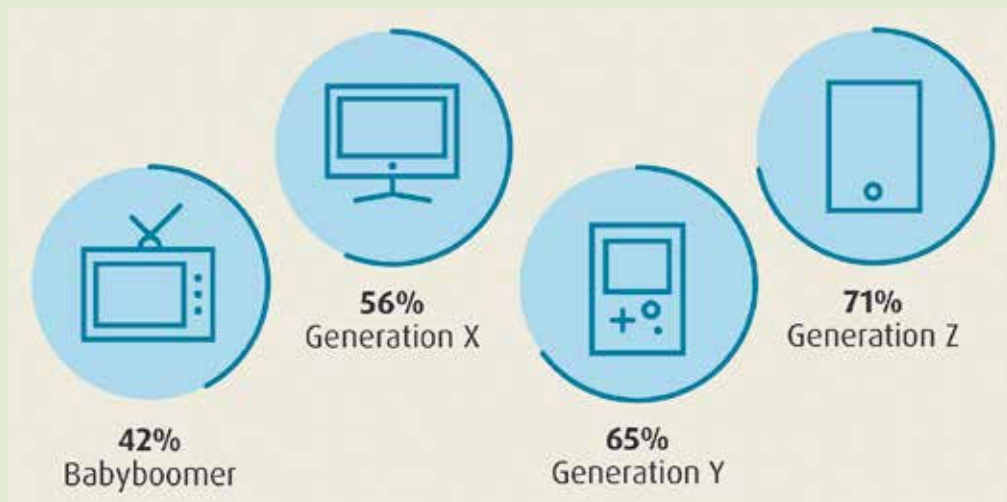
**Prof. Dr. Andreas Dietrich**  
Head of Competence Centre Financial  
Services Management Lucerne  
University of Applied Sciences and Arts  
– Economy, Institute for Financial  
Services Zug IFZ



# HOW DIGITALIZATION IS CHANGING THE BANKING SECTOR

Technology has always been important in banking, as the long history of e-banking shows. But today, technological progress, changing customer behavior and the entry of new competitors have led financial institutions to intensively address the issue of digitalisation and the associated opportunities and risks. Our guest author points out some of these developments.

## The younger, the more mobile – Mobile Banking in Switzerland



Source: Hochschule Luzern IFZ Zug

Online and increasingly mobile banking have long been a mainstay of the Swiss banks' private client business, alongside branch banking. As a survey conducted jointly by the Lucerne University of Applied Sciences and Arts and ti&m among 1000 Swiss people shows that e-banking in particular is a central channel for customers.

89% of all participants surveyed stated that they use e-banking. The frequency of use is interesting: 66% of e-banking users check their account balance at least weekly. On the other hand, 11% of e-banking users are still "refusers". The main reason for not using e-banking is security concerns (37%). Overall, 54% of those surveyed are already (also) using their smartphone or tablet to access the bank.

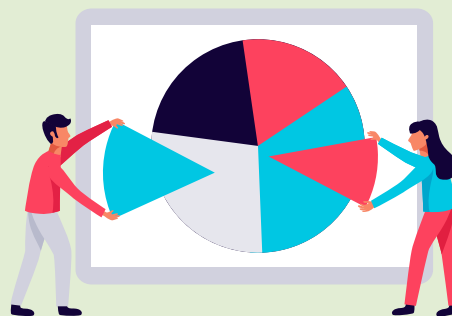
**11%**  
of Swiss still  
refuse e-banking

We can see that the average age of mobile banking users is around five years lower (41 years) than that of e-banking users (46 years). Around 36% of the Swiss population are "e-banking only" users – in other words, these customers use online banking but not mobile banking. On the other hand, only 1.2% of those surveyed use mobile banking but not e-banking.

The study "Customer Touchpoints in Banking," published in July 2020, confirms this trend. According to the study, around 92% of those surveyed now use online banking, whether in the city or in the country, and this explicitly includes older people – no other touchpoint is used by more customers and more frequently. According to the study, however, the following applies to mobile banking: the younger the group of customers surveyed, the higher the affinity to banking on the smartphone. Mobile banking is mainly used to check account balances and incoming payments, but for business-critical services and transactions, customers tend to switch to other touchpoints.

### Personal contact counts for mortgages

Digitization and the resulting changes in customer behavior also lead to new opportunities and risks in "financing" from the banks' point of view. Thanks to technological advances, institutions – even outside their traditional market area – can grant mortgage or corporate loans via the Internet. The market for online mortgages, i.e. the conclusion of mortgages via the online channel, is of particular interest here.



Although these online opportunities have existed in Switzerland for more than nine years, the corresponding market share is still very low at around 3 percent. However, as more and more financial service providers are offering a digital channel, an increased volume above this is to be expected in the near future, especially with regard to the extension of mortgages that have fallen due.

At the same time, personal contact with the bank seems to remain important for many people when making such a decision. A typical mortgage customer will probably continue to research relevant product information online in the future in order to be prepared for a purchasing decision. However, he will still make the actual conclusion of the transaction "offline" – i.e. at the branch or on the phone.



### Investment advice is automated

The development of new technologies, intelligent algorithms and changing customer behavior will also change the revenue field of investment advice, which is important from a banking perspective. Today, customers have the opportunity to find out about investments in a variety of ways, discuss investments in communities and manage their money digitally. The so-called Robo Advisors are always in particular focus.

“Robo Advisor”, composed of the words “Robot” and “Advisor”, are based on an algorithm system that makes automatically generated recommendations for investments and automatically implements them. Supportive advice and interaction between the customer and provider is largely avoided.

Despite a rapidly growing number of providers and increasing diversity in the range of products and services on offer, volumes have developed rather slowly in Switzerland in recent years. In addition, some providers have also left the market in the meantime. It is noteworthy that Robo Advisor offers are used in an initial phase primarily by better educated, male and digital savvy people.

### Growth market private provision

The topic of „digital provisioning” is becoming an increasing priority for banks. The three-pillar system commonly used in Switzerland, with old-age, disability and survivors’ insurance, which are financed in different ways, contains a tied pension plan in pillar 3a that is subsidized by federal funds and is therefore tax-deductible. Above all, the development of a digital pension app that allows savers to manage or control their 3a portfolio simply and cost-effectively appears to be an offer that customers are looking for.

The results of the trend study carried out by the Lucerne University of Applied Sciences and Arts show that 46 percent of all respondents can now imagine opening a retirement savings account online. The market for private provision for the future is generally a growth market, the development of which is likely to gain further momentum with the help of digital solutions.

### Cashless payment more strongly in trend

Until the beginning of the Corona pandemic, cash was still very popular in Switzerland. It is estimated that almost 70 percent of all transactions up to that point were still made with cash. After the virus outbreak many retailers appealed to their customers to pay with debit or credit cards or smartphones to avoid infection. Even before that, developments in the field of contactless card payments showed that the Swiss were also adapting their payment habits, if there was an obvious additional benefit (e.g. in the form of time savings).

Mobile payment therefore has the potential to change the payment traffic in the long term. Currently, about 8 million transactions per month are made via smartphone. This sounds like a lot at first glance. But in terms of the total number of transactions, it corresponds to "only" an estimated market share of 1 percent. However, this also shows that the upward potential – not least due to the behavioral changes caused by Covid-19 – is still great.



### Scepticism towards new technologies

In contrast, customers are still reluctant to embrace new technological developments, such as electronic identity, biometric authentication procedures, voice and speech recognition software or location-based services – at least with regard to associated banking services.

Only a minority of the customers surveyed are currently positive about these technological innovations. The corresponding offerings have not yet become widely accepted and, according to the survey, have not aroused much enthusiasm. For example, only 16% of those surveyed currently use a digital assistant in everyday life.

## Conclusion

The various developments show that clients in Switzerland are not particularly technology-savvy when it comes to the digitization of banking services. In all service sectors there is a more or less large group of clients who are interested in appropriate solutions (average: male, 38 years old, well educated).

However, these central services in the area of digital payment, financing or investment are not yet used nationwide by the Swiss population. It is to be expected that complex transactions such as taking out a mortgage or making a retirement plan will continue to be concluded through personal discussions in the future. On the other hand, more simple transactions, such as opening an account, making payments or making a deposit into the 3rd pillar will become more digital.



# THE VIRTUAL TEMPORARY COLLEAGUE

by Sandra Bruderer and  
Remo Rambaldi, ERNI

Robotic Process Automation, or RPA for short, has raised many hopes in recent years and caused a stir in the financial services industry. What can this technology do and what can it not do? Sandra Bruderer and Remo Rambaldi, Senior Consultants at ERNI, recommend a well-considered use of software robots.

### Possible applications of RPA (multiple calculations possible)

Back office, active	83%
Back office, passive	73%
IT	27%
Accounting	23%
Distribution	23%
Risk Management	17%
Controlling	13%
Personnel	10%
Reg. reporting	7%
Compliance	3%

Source: Gartner

No, a “robot” in the sense of RPA is not a machine that physically exists on a factory floor and assembles cars. And it certainly has nothing in common with R2D2 from Star Wars. In this case, the term “robot” refers to software that can be used to automate existing processes without having to adapt the respective application or implement a new interface.

#### More time for demanding tasks

There are numerous possible applications for this, especially in banks and insurance companies, and according to a forecast by Gartner analysts, the market for RPA tools is expected to grow by 41 percent annually until 2022. “Yes, this technology can indeed also be very helpful in certain areas in the financial services industry,” says Remo Rambaldi. “Especially when it comes to achieving cost savings very quickly without having to implement large digitization projects.”

Sandra Bruderer sees the back office as a possible area of application, since “there are many repetitive and routine activities”. In this case, RPA could very usefully relieve people of often rather tiring and strenuous tasks, so that they could spend more time on demanding activities. “And especially in the case of banks and insurance companies there is more meat on the bone simply because of the large number of similar procedures,” she points out the special potential in the industry.

On the other hand, the two experienced consultants consider the use of the automation software in many other areas, such as compliance or human resources, to be less sensible – for very different reasons. As regulations tend to increase rather than decrease, the complexity here is also constantly increasing. “RPA makes the most sense when it is a consistent, structured process that needs to be automated. And it should have a high volume, because only then it pays off,” says Rambaldi.

### People are not replaceable everywhere

And when it comes to recruiting, for example, no algorithm today can really replace the human being and his or her discretionary scope. The same applies to bookkeeping and controlling – human know-how is indispensable there, too.

The two consultants describe an example from their consulting practice in IT, where the issue was the allocation of user rights for application access. An employee had to go through a huge Excel list and find out who should be given which rights according to the role concept. "Here the robot was able to find a quick remedy and save a lot of time," they report.

However, the two experts see three things as prerequisites for use in such tasks: The data must already be available in digital form and there must be a precisely defined set of rules on the basis of which the software robot makes "decisions". Finally, the number of tasks to be performed must be large enough to make the effort worthwhile.

Sandra Bruderer cites the following example: "If a process occurs in a large number in one year and the employee needs two minutes or even more time for it each time, then the use of RPA can pay off". But if this process only occurs about 1000 times a year and the employee only needs 30 seconds to complete it, then it is probably not worthwhile.



### Bridging technology for a limited period of time

With this knowledge in mind, ERNI consultants also go to their customers and provide advice there – solution-oriented and neutral. “We check very carefully whether RPA can solve the problems and we also point out, that a company usually only buys itself some time in the short term”. But in the long term, he says, a software robot alone does not represent a holistic and sustainable solution or replace the comprehensive digitization of end-to-end processes.

However, it could very well help to implement quick partial solutions. “In our eyes, RPA is a good bridging technology, whose use for a limited period of time can make sense,” says Remo Rambaldi. The big advantage is that the software can be introduced quickly and is fully operational after a short time.

Many banks, for example, are currently pushing ahead with e-banking, and more than ever before, many processes at insurance companies can already be handled online. RPA can also be a useful addition to such processes for those financial service providers. Especially when artificial intelligence (AI) is used.

This is because it can do something that RPA cannot do – namely process unstructured documents. It would therefore be possible to use machine learning to do some preliminary work and then transfer the structured data to a robot for further processing.

### Compliance rules also apply to robots

In general, however, this automation software is also subject to the strict regulatory requirements that every human employee in the financial services industry has to observe. Thus, the software robot is assigned to a team leader, who is responsible for its deployment. Before each operation there is an extensive test phase to exclude all complications and above all the violation of banking secrets.

“It goes without saying, that the use of a robot also requires the acceptance of the entire team in the company,” Remo Rambaldi adds. “That’s why we place great emphasis during the introduction on explaining the benefits of such software and showing, what it can and cannot do and what access to applications it actually gets”.

The consultants train interested back-office staff in new technologies, such as RPA, artificial intelligence, etc., and are also aware of their concerns. But during training they can quickly make it clear that RPA is a solution for mainly simple processes and not a job killer.

“We always call this a virtual temporary colleague who joins in to help quickly and reliably with tasks that are a time-eater for the employee due to the quantity and constant repetition, so that without them it is easier to concentrate on complex tasks,” says Sandra Bruderer.



**Sandra Bruderer**  
Senior Consultant  
[sandra.bruderer@erni.ch](mailto:sandra.bruderer@erni.ch)

ERNI Switzerland AG



**Remo Rambaldi**  
Senior Consultant  
[remo.rambaldi@erni.ch](mailto:remo.rambaldi@erni.ch)

ERNI Switzerland AG





# CONCATENATING DATA

by Eric Anderegg, ERNI

**Distributed Ledger Technology or “Blockchain” is also considered a game-changer in the financial services sector. Is it just a hype or are there already useful applications in banks and insurance companies?**

The media hype about Bitcoin, Ethereum and other cryptography-based applications has been going on for some time. The Distributed Ledger Technology (DLT) behind them – commonly known as “Blockchain” – is said to have disruptive potential to radically change processes in the financial services industry.

According to a recent study, “Blockchain technology has the potential to change not only the global foreign exchange market, but the banking sector as a whole, by eliminating existing intermediaries and replacing them

with a trusted, borderless and transparent system that is easily accessible to everyone.”

Blockchain technology has the potential to help banks and insurance companies enable faster and more cost-effective transactions, improve access to capital, create more data security, enforce trustworthy agreements through smart contracts, or make compliance smoother.

### Swiss banks are (still) hesitant

Thanks to shared database technology, blockchain-based systems can replace central instances in many areas. This is possible because the DLT validation algorithms guarantee the trustworthiness of the recorded transaction data without any intermediaries.

### Many scenarios for practical use

There are a number of possible areas of application – for banks, for example, they range from the creation of new trustworthy ecosystems to inter-bank clearing, from simpler granting of small loans to new solutions to prevent money laundering and better compliance with know-your-customer requirements or more efficient securities processing.

compulsory registration of animals, border crossings of pets or an owner register. One use case referred to the animal insurance of dogs and cats.

In our proposal animal insurance contracts can be automated as far as possible by using Smart Contracts. For this purpose, insurance-relevant data (e.g. animal health data) from the databases of the animal data service provider are fed fully automatically into the Smart Contracts, where they can be viewed at any time by all parties involved - such as veterinarians and clinics, dog and cat owners or the animal insurance company - in a tamper-proof manner. In the Ethereum blockchain, in addition to the "Unique Identifier" of the insured animal, the definition of the policy calculation criteria is also stored, so that the

## Crypto-Valley

Although Switzerland, as a global "Crypto-Valley" with more than 800 companies in this sector, is a technological pioneer, the country's banks are rather reluctant to invest. According to a survey by the National Bank (SNB), only very few financial institutions describe Blockchain as "one of the most important innovative technologies in the next three years".

In our view, however, this assessment is only partly correct. Indeed, the topic is still often only discussed or is in the pilot testing stage. Actual productive applications are still rather rare. But we are convinced that this will change fundamentally in the next ten years. The potential that Distributed Ledger Technology holds for financial service providers should not be underestimated. Therefore, now is the time to look into it and position yourself.

For insurance companies, issues of legitimacy and identity or fraud detection and risk minimization are an issue. The same applies to loss prevention and management of smart contracts. At a service provider for animal data, we developed several useful use cases for their business in the course of a workshop - for example for a trading platform in the field of livestock, the



execution of the contract can also be processed automatically – from the premium calculation to the execution of payments between the wallets of the parties involved. The introduction of use-based insurance models with the help of the Internet of Things (IoT) will certainly also be a topic in the next few years. And there would certainly be much more to mention.

Another topic in the next few years will be the introduction of usage-based insurance models with the help of the Internet of Things (IoT). And there would certainly be much more to mention.

To this day, the topic of blockchain is sometimes perceived in such a way that on the one hand there are the large, traditional companies, while on the other hand there are the small, young, agile start-ups with innovative Blockchain technology solutions. But the industry has to get beyond this black-and-white thinking.

## Hybrid ecosystem

For example, an increasingly “hybrid” ecosystem could develop over the next few years, with crypto-newcomers from the field of DeFi (Decentralized Finance) working closely with traditionally positioned financial service providers, with the services and core competencies of both partners complementing each other.

### Preparing now for the future

For quite some time, we at ERNI have therefore been offering financial service providers a “Blockchain Assessment”. In a workshop lasting several days, we first analyze the customer’s business areas and evaluate the associated potential for the use of DLT.

In the case of the animal data service provider, the three workshops were spread over two months. On the first half-day, the basic areas of application of the blockchain technology in the specific industry and the development of the six possible use cases were discussed.

In the second workshop, these use cases were then evaluated in more detail, resulting in a shortlist of examples that would most quickly produce tangible benefits for the company and that would not involve too much project complexity. The front-runner was finally looked at more closely in the final workshop. Among other things, we presented the blockchain technologies examined for this case with their advantages and disadvantages and possible architectural solutions. We also presented a possible user journey for the end user and the expected costs for the implementation.

Potential for the use of DLT – according to our practical experience from such “blockchain assessments” - usually occurs when the need for security and transparency are important factors or when many stakeholders are involved. A certain degree of digitization in the company is also important. For those areas that we believe have potential, we then work with the client to develop a proposal for implementation and an implementation strategy.

In doing so, we show in concrete terms how the blockchain-based solution will work. And last but not least, we also provide an estimate of expenses and cost analysis. In this way, as consultants we help banks and insurance companies to be prepared for future developments at an early stage and to achieve competitive advantages – and all this with a manageable budget and effort in experimenting and learning.



## Differences in the Blockchains

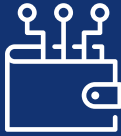
### Public

Anyone can participate and view the data, example Bitcoin.

### Private/Consortia

Private network, where usually several organizations share responsibility and define roles, example Ripple.

## Open financial ecosystem in the making



The term Decentralized Finance (DeFi) covers digital assets, protocols, intelligent contracts and DApps based on a Blockchain and usually on the Ethereum platform. The Open Lending Protocol creates an open financial ecosystem with digital money lending platforms and other decentralized financial instruments and services.

The goal of DeFi is to give consumers full control over their assets and to store, trade and invest them securely in a blockchain. Since there are no intermediaries to earn money from, it should be possible to generate a much higher return.

The DeFi market is still relatively small compared to traditional finance, but it is growing rapidly. With more projects and DApps in the financial sector, it is expected, that a truly decentralized ecosystem will emerge, which in the future will work in sync with the traditional financial market.

## Trade finance platforms



Several Blockchain platforms are already active in Switzerland in the area of international trade finance. Several European banks, including Deutsche Bank, UBS from Switzerland and the Italian UniCredit, are participating in the We.Trade joint venture.

The Marco Polo platform was initiated by banks from Europe and Asia, including Commerzbank and Landesbank Baden-Württemberg from Germany. Voltron, the third project that intends to use Blockchain for trade financing, is supported by the major British bank HSBC, among others.



BLOCKCHAIN

**Joint insurance initiative**

As early as 2016, the Blockchain Insurance Initiative (B3i) was launched, which, as founders, includes 14 global insurers and reinsurers in addition to the Allianz Group. For example, the Zurich Insurance Group or Swiss Re from Switzerland.

Meanwhile, more than 30 reinsurance contracts are available on this platform, for example for the settlement of catastrophe claims. Cost savings of up to 30 percent should be possible if insurers share data in a decentralized database, thereby increasing the ability to forecast and adapt.



**Eric Anderegg**  
 Consultant  
[eric.anderegg@erni.ch](mailto:eric.anderegg@erni.ch)  
 ERNI Switzerland AG

# THERE IS MORE THAN BLACK OR WHITE

by Andreas Frei, ERNI

When it comes to mobile applications, there are several alternatives to choose from. Progressive Web Apps (PWAs) offer some advantages and are therefore very popular. However, it depends on the particular task, which type of application makes the most sense.



The difference is hardly noticeable at first glance: Whether native, hybrid or Web App – from the outside, they all look quite similar on a smartphone. But if you look behind the facade, you will find a multitude of different technologies.

On the one hand, the two tech giants Apple and Google are fighting for market share and are striving to control the app ecosystem for their devices or their respective operating systems via their app stores. And then, outside of the stores, there are the Progressive Web Apps (PWA) in addition to various conventional mobile web applications.

“Consumers generally do not install a bank’s or insurance company’s own native app on their smartphone before their first interaction.”

#### Every mobile solution has advantages and disadvantages

Native apps are developed exclusively for a specific mobile platform – primarily Apple iOS or Google Android – using a native platform language. The publishing process is preceded by a review by the respective App Stores. The same applies to hybrid or cross-platform apps.

However, they are not programmed in one of the native platform languages, but are delivered to the stores “translated” or packed in a native container. Their advantage is that they do not have to be programmed and maintained separately for each operating system, but there is a loss of quality and a lower loading speed.

These web apps are available on the mobile via the browser and offer the user an experience that is similar to native apps. Their disadvantage is, that they take up a lot of memory on the device and users have to be constantly connected to the internet for them to work.

#### Progressive Web Apps with low loading times

That’s why many companies – especially in the e-commerce sector – are now turning to Progressive Web Apps, which do not have these limitations. The “progressive” in the term stands for the gradual adaptation to the technical conditions of the respective device.

PWAs have a decisive advantage for users. “The loading time is usually less than 10 seconds from the second call, even in a 3G mobile network,” says Andreas Frei, Usability Engineer & Web Developer at ERNI. As a result, they are now the tool of choice, especially for acquiring new customers who are looking for financial services and offers on their smartphone.

This is because consumers generally do not install a bank’s or insurance company’s own native app on their smartphone before their first interaction. “In addition, they don’t need any memory space and an icon on the home screen is quickly placed,” says Frei, describing further usability advantages. Since these applications are not installed but only cached, they also work with a slow internet connection.

“Progressive Web Apps lead to significantly higher conversion rates, longer dwell times and more interaction through easier accessibility”.

The content does not have to be reloaded again and again, because only the necessary data is updated and, in principle, all important elements are also available offline. The PWAs, which are exclusively based on web technologies, thus offer easier handling while at the same time providing a high level of functionality.

### Time and cost advantages in development

At the same time, the companies save themselves the parallel development and maintenance costs for different operating systems and the time-consuming testing process by the App Store operators. "The development of a PWA costs only half as much as that of a native app," Andreas Frei calculates. And the time-to-market for new mobile applications or extensions is significantly shorter.

At the same time, banks and insurance companies that already use PWAs report significantly higher conversion rates, longer dwell times and higher interaction rates due to easier accessibility. Despite these many advantages, the ERNI expert advises a close examination of the intended use: "If, for example, an insurance company wants to offer mobile damage reporting for its existing customers, a native app is more advisable".

Because, if there is a recognizable concrete long-term benefit, consumers are often willing to install such an application and customer loyalty can be significantly increased compared to a PWA. The special possibilities of the individual mobile operating systems and end devices can also be better used.

Likewise, the usability can be made more comfortable by using specific controls, designs and functions. Just like the customer login – an important security issue, especially in the financial services sector when accessing bank accounts or insurance contracts.





# “APP-LESS BANKING” LEADS TO HIGHER CUSTOMER SATISFACTION

India's Yes Bank is pushing forward mobile banking without an own native app. It offers a range of services via mobile browser using advanced web app technologies. These include chat-like applications with executable buttons for carrying out basic banking transactions. The mobile platform seamlessly integrates data, applications and channels with each other, enabling the financial institution to provide various micro-experiences via different mobile channels such as SMS, WhatsApp, etc.

## ERNI AppType Chooser helps with technology selection

Andreas Frei therefore warns against black-and-white thinking in app development: “There are pros and cons for every solution, which must be weighed up carefully against each other beforehand”. The ERNI AppType Chooser (<https://betterask.erni/apptype-chooser>), which he developed as a Senior Masterpiece, helps companies to quickly find the right technology for a planned app by means of a convenient online questionnaire.

But in any case – according to Frei – the Progressive Web Apps, which are now also used by many FinTechs and InsureTechs for their mobile solutions, are worth considering. Especially for reasons of cost and time.



**Andreas Frei**  
Usability Engineer  
& Web Developer  
[andreas.frei@erni.ch](mailto:andreas.frei@erni.ch)  
ERNI Switzerland AG

Here you can try out the  
**ERNI AppType Chooser**



“The challenge for the entire industry today is to get customers to download different apps for Internet banking,” says one bank representative, explaining the motivation behind the “app-less banking” offering. This could now be used to provide improved customer journeys – for example, to solve customer problems in the first instance with minimal response time. “This leads to a higher level of consumer satisfaction and a consistent customer experience that is not dependent on specific end devices or operating systems,” says Yes Bank.

# CASHLESS FUTURE?

Mobile payment is growing rapidly. The proportion of contactless card payments in Switzerland has more than doubled in the last 12 months, while cash withdrawals from ATMs are declining. Since the beginning of the Corona crisis, payments have also been increasingly made by using mobile phones and Smartwatches. In a highly competitive environment, the brand profile of the providers is crucial.





“The year 2020 will be extremely important for mobile payment in Europe,” the Zurich-based European Mobile Payment Systems Association (EMPS) predicted as early as March of this year. But even in its wildest dreams, the network with members from several European countries had not reckoned with what happened next. The number of users at the largest Swiss provider alone shot up to more than 2.4 million after just a few days of the lockdown. And the number of transactions in the stationary food retail sector rose to around 1.1 million in the Corona month of April, an increase of 15% compared with March.

#### Payment process works completely contactless

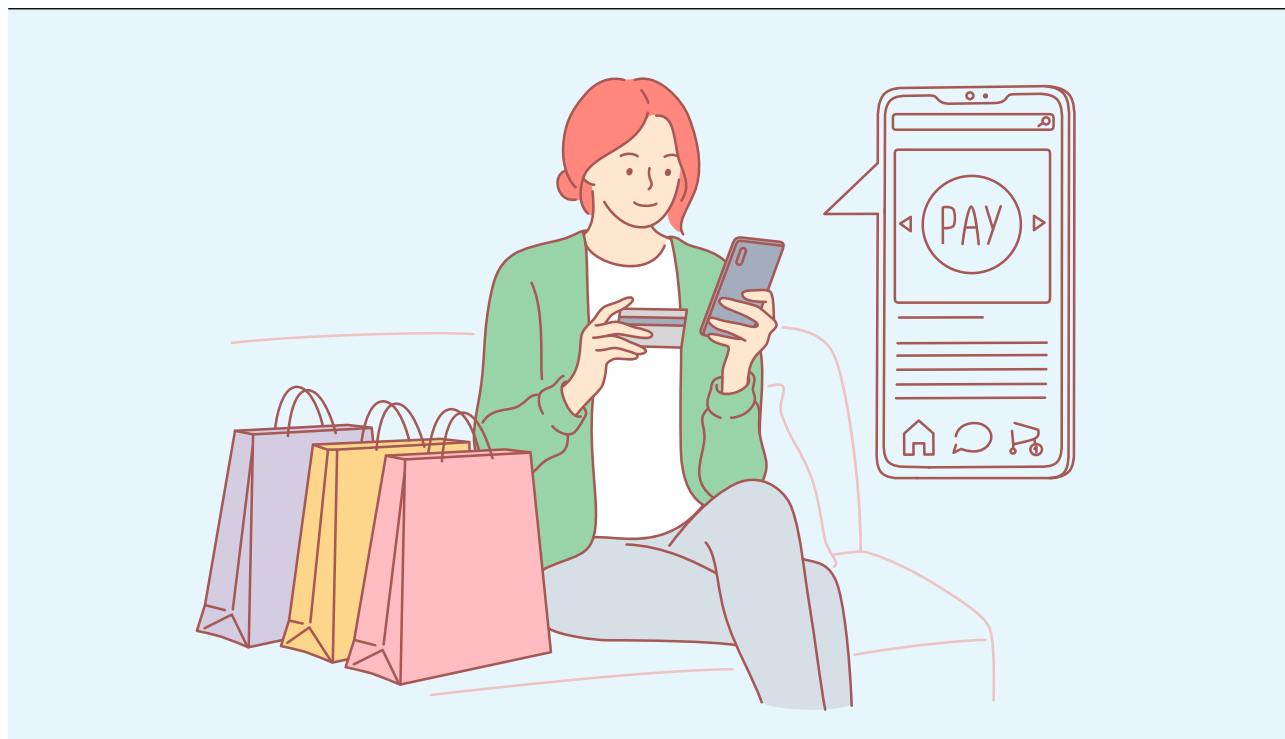
Above all, a decisive contribution to this has been made, by the recommendations of retailers to refrain from using notes and coins when paying in their shops and thus protect customers and sales staff from infection with the virus. The payment process with the smartphone app works completely contactless and without entering a PIN at the payment terminals.

The service allows cashless shopping in online shops as well as donations to charitable organizations. The app can also be used to send and receive money between individuals. Another special feature is that it also digitizes coupons, stamp cards and customer cards in retail outlets, which are automatically taken into account during payment.

In this way, banks and retailers in Switzerland have succeeded in doing something that is still outstanding in other countries such as Germany: The creation of a relatively successful mobile payment system as a competitor to the globally dominant solutions such as ApplePay, Google Wallet, Samsung Pay, Alipay or Wechat Pay.

Since its foundation in 2014, the company has become the number one in its home market and 60 Swiss financial institutions, which are estimated to cover over 90 percent of the retail banking market, and are now connected. On the other hand, around 300,000 supermarkets, shops, restaurants, bars, ATM operators, online and app shops have integrated the convenient payment option. Among them Aldi, Migros, Coop or the SBB. Also 1200 farm shops all over the country accept them. These and a growing number of other local shops often use a static QR code to cash in, as this method does not require special payment terminals.

The aim of EMPSA is to establish a joint European payment system without the American and Chinese technology and credit card companies. In addition to technological differences – for example, the Swiss app works with a direct connection to the payer’s current account without any intermediate debit or credit card systems – a convincing customer experience played an important role in the development from the very beginning.



### Fresh brand presence with a striking profile

The operators had the vision to create an innovative brand and to redesign payment transactions with an app. The digital and branding agency eMarket, part of ERNI ecosystems, supports the young company in developing the future brand profile - from defining the brand values and the brand core to positioning. Tailored to the target segment and based on the brand values, a brand presence with a striking profile was created that focused on catchy shapes and colors.

The brand identity was initially supported by a visual world that told real-life stories. The word-image brand was based on a few terms that stood for the "app of the future as a mobile companion". By visualizing these individual terms such as "urban", "digital", "mobile", "fair", "agile" or "uncomplicated" in explicit forms and merging them into a simple, graphic, emotional form, the future appearance was created.

### Growth rates of 75% per year

How sustainable the current boom in contactless payment by smartphone will be in the post-Corona era is a matter of controversy among experts. But according to a current forecast by the Statista Digital Market Outlooks, the number of consumers in Germany, who pay at the point of sale via mobile wallet, is expected to grow from 6.5 million in 2020 to almost 20 million by 2024. According to the study, the increasing attractiveness of mobile payment can be seen even more clearly in the average transaction volume per user: This is expected to rise from currently under 1,000 euros to over 2,600 euros in 2024.

# DIGITAL MATURITY FITNESS CHECK: SEEING THE ENTIRE FOREST AND EVERY SINGLE TREE

by Lara Müller, ERNI

DIGITAL MATURITY CHECK



**Where do banks and insurance companies stand in the digital change? Where do they want to go and how is this to be achieved? For the purpose of situation assessment, ERNI has developed the Digital Maturity Fitness Check.**

It is true that 9 out of 10 of the banks and insurance companies interviewed for a worldwide study are convinced of the necessity of digital change. And 61% of the financial service providers participating in the survey also plan – in response to new technologies, growing competition and changing customer expectations – to move away from their traditional business model and the exclusive sale of their own financial products.

#### Determining the current status

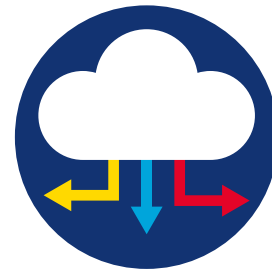
But such surveys do not reveal much about the current status in each individual company and where it needs to take the leverage to successfully tackle and continuously deepen the digital transformation. A target/actual analysis is nothing unusual. But given that banks and insurance companies are subject to special regulatory provisions and conditions and must observe strict compliance rules, the change here is even more complicated than in other industries.

At the same time, the widespread bonus systems encourage lone fighters in financial sales and most traditional companies have rigid hierarchies that need to be broken down first. In addition, IT systems that have often grown over many decades are no longer up to today's requirements. The industry is also sometimes a little hesitant to implement new technological developments, while at the neobanks – whether young start-ups or digital giants such as Google and Amazon – digitization is already in their DNA.

#### Compensating for a lack of experience

Most conventional banks and insurance companies, which are now becoming software companies themselves and have to build digital business models, lack experience in this area. This is why we at ERNI have developed a Digital Maturity Fitness Check, which can help with an initial assessment. It can be individually adapted and carried out for each customer and their requirements.

This analysis of the digital maturity level is basically based on five pillars, which we look at in detail. Starting with the basis of the business, the status of the IT systems and up to the most important: market and customer orientation. However, we also examine existing digital activities, the market and the value chain as well as the corporate and management culture. We consider this holistic and customer-centric approach to be extremely important. After all, many companies think that they have already done enough by using a tool for agile working without changing their business processes and mindset at all levels.



However, that's not the case. We know and see best practices from the industry and can therefore compare where our customer stands and where there are still areas of action where change is necessary. Overall, banks and insurance companies worldwide have already tackled a lot in this area, but there is still a lot to do. On this path of digital transformation, we consider ourselves experienced travel companions and coaches for our own change management.



DIGITAL MATURITY CHECK



### Customer Centricity

Digital Activities

Culture and Leadership

Market and Value Chain

**Enabler: IT Capabilities**

#### Nothing is imposed on the customer

How do we proceed? Above all, we do not impose anything on our customers, but advise them individually. Let's bear in mind that not all five pillars are always equally important. For example, if a company has only ever sold its products from a stationary location, but now wants to improve its web presence and sell them digitally, then customer focus and digital initiatives will have a higher priority in terms of analysis and consulting. Or if a certain level of maturity already exists, for example, if insurance policies can already be taken out online, but problems arise in developing this approach, we focus more on corporate culture and leadership.

We conduct our Digital Maturity Fitness Check on the basis of structured interviews. Since we interview different people in the company, we get reliable results and the customer receives a comprehensive overview of his digital maturity level as an evaluation. As a Swiss consulting firm, we at ERNI are not committed to any particular method or tool and are therefore completely neutral.

Our customer engages us in order to develop further - in this way we want to help him and show him how he can go his own way. Since the financial services industry today has many challenges to overcome - you often cannot see the forest for the trees. Our job is therefore to make the entire forest and every single tree visible again.



**Lara Müller**  
Strategy Consultant  
[lara.mueller@erni.ch](mailto:lara.mueller@erni.ch)

**ERNI Switzerland AG**



# HEALTH INSURANCE COMPANIES NEED MORE EMOTIONS

by Patrick Wilhelm, ERNI

Health insurance companies are considered the secret winners of digitization in the health care system. In the future, they will play a much greater role and control their policyholders much more than they do today – for example, in terms of using preferred provider networks for diagnoses and therapies.



We spoke with Patrick Wilhelm, Global Services Lead Innovation & Digital Business Consulting at ERNI Schweiz AG, about the use of health apps and the customer experience of applications for the insured.

**The tasks of health insurers will change significantly in the future. What do we have to prepare for?**

The companies in this field will reposition themselves – away from being pure insurers and towards becoming health coaches. After all, people are getting older but do not necessarily stay healthy.

This will increase the need for advice on healthy lifestyles. Health insurance companies can take on this task as guides through the increasingly complex healthcare system.

Up to now, customers have usually only come into contact with their insurance company in the event of damage or an impending change, which are then rather negative or emotionless experiences. In the future, a positive customer experience will be more important in the interaction between the parties involved.

**In other words, the customer experience is taking center stage? What are the challenges in this regard?**

Above all, it's the attitude that has to change. Health insurers have to put themselves even more in the shoes of their customers. This includes understanding that a five-second wait for a request on the website can be a pain.



If I put someone through this, it has something to do with my attitude towards the customer and is not a purely technical problem. Digital interaction must not be just a keyhole to get in touch with each other. Insurers must always have the entire customer journey in mind. This is because they are increasingly competing with providers from outside the industry or young InsureTechs.

**According to a study from Switzerland, insurance companies neglect the emotions when it comes to the customer experience. Instead, they appear cool and distant.**

Yes, this is inextricably linked to the topic of customer experience and behavioral psychology plays a major role in this. The customer must feel good in front of the screen and feel safe and accepted.

But even if digitization continues to advance, people in crisis situations prefer to interact with another person on a personal level. For example in the event of accidents and illness. This is what will make up the health insurance of the future: The combination of digital communication and physical contact points. As a customer, I want to have the choice of when, where and how I communicate with the insurer. This has a major impact on my emotional state.

**How do the health insurance companies manage all this and how does ERNI support them?**

Technology is an important pioneer in the digital change, but by no means everything. It's about the attitude and the will to generate positive customer experiences. That's what we are also conveying to our customers – and we help them in a very practical way to pursue this approach themselves.

For example, when we support a company by rebranding a brand. This is not just about a more appealing logo or a modern website. Above all, the company must signal to its customers: We understand you and your needs.



**Useful health apps, which are paid for by health insurance companies on prescription, are an important differentiating feature in an increasingly competitive environment. Can ERNI help with this, too?**

Absolutely. But there are some hurdles with these apps. As a provider, I can say that my diagnostic app is of high quality and reliability. But as a medical device, it is subject to very extensive testing and approval in the various countries by the local authorities. There are a number of legal aspects to be considered.

At the same time, it must also offer the patient an exciting user experience. It is not always easy to reconcile both. ERNI is also Medtech certified in various countries in which we have subsidiaries. For example, in Switzerland, Spain and Germany. This means that there we advise our customers not only on technology but also on regulatory issues.

## The future of health insurance



“Future of Health – an industry is going digital – more radically than expected,” is the title of a study from autumn 2019. The study, which questioned 400 healthcare experts, concludes that there will be radical changes in healthcare systems in Europe by 2025.

The health insurance companies play a central role in this process. Not only do they have an overview of the entire supply chain, but they also possess the greatest treasure of the digital age: the comprehensive data sets and streams of their policyholders. Almost half of the experts surveyed expect that insurance companies will also offer digital diagnoses and therapy support themselves on this basis in the next five years.

## Health insurance companies lack emotional warmth

Why do people choose a particular health insurance? A management consultancy in Switzerland specializing in neuromarketing has investigated this topic and asked about the subconscious expectations of the insured. Their key result: In a market with particularly interchangeable products, emotions play an important role.

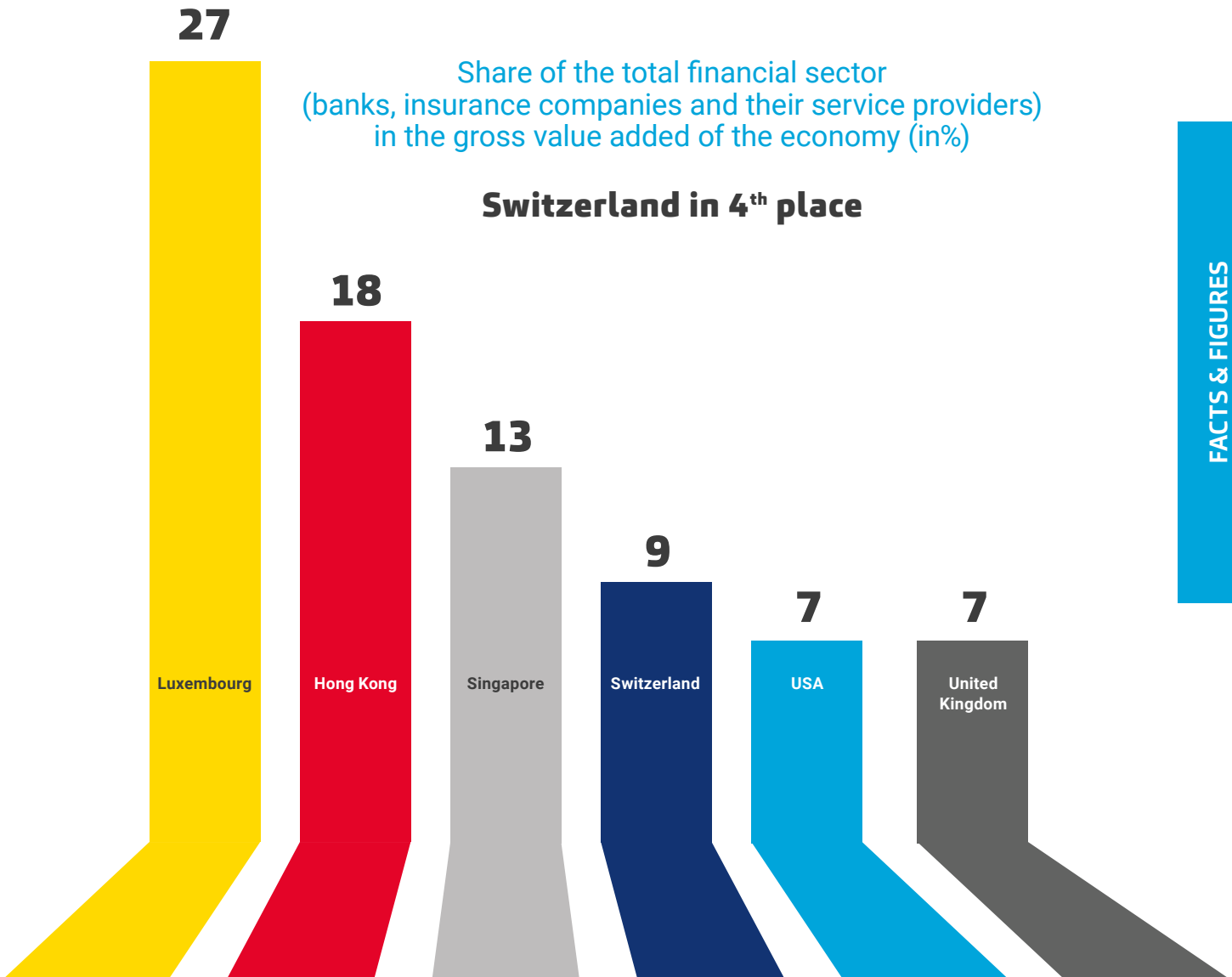
Above all, clients want their health insurance to “convey a feeling of emotional warmth and closeness.” What is needed are “life-like offers, messages, advice and touchpoint implementations that trigger gentleness, concern and empathy”, according to the study’s findings. But instead of being offered the required “care, affection, harmony and friendship”, the insured are all too often only offered “action, suffering, coldness and horror” by their self-centered providers.



**Patrick Wilhelm**  
Principal Consultant  
Global Services Lead  
Innovation & Digital  
Business Consulting  
[patrick.wilhelm@erni.ch](mailto:patrick.wilhelm@erni.ch)

ERNI Switzerland AG

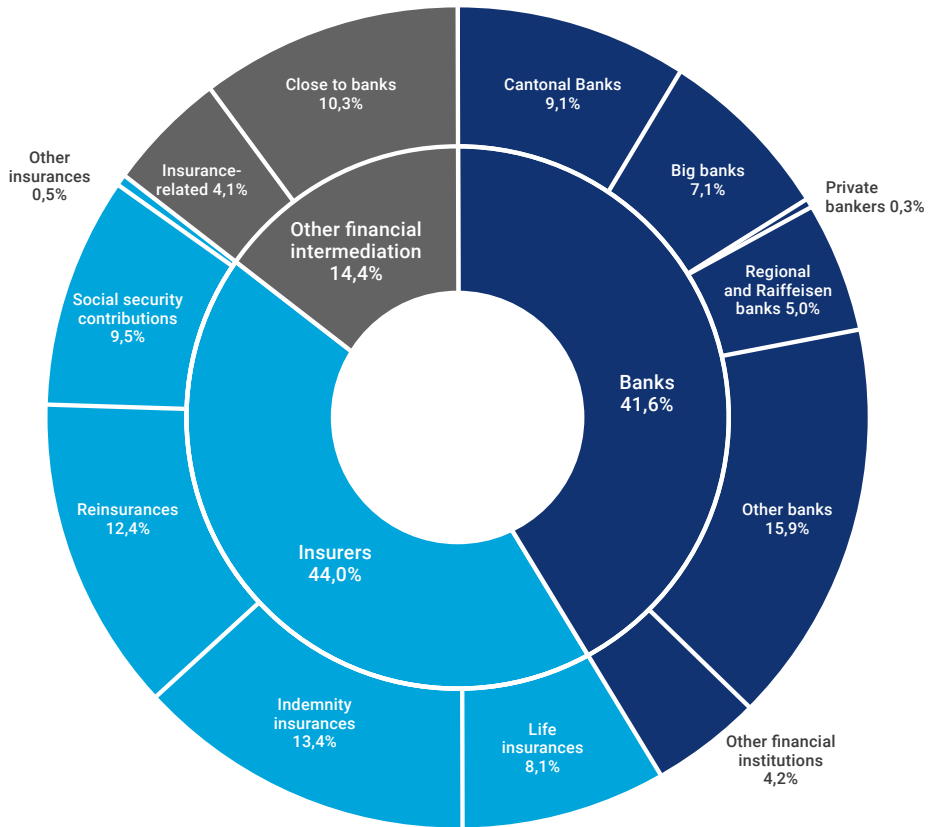
# THE INDUSTRY IN FACTS AND FIGURES



FACTS & FIGURES

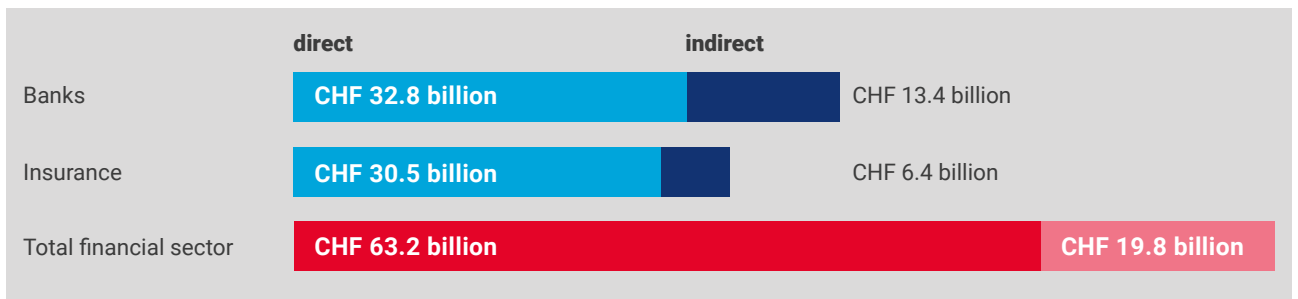
Source: BAK Economics, 2019

# COMPOSITION OF THE FINANCIAL SECTOR IN SWITZERLAND



Source: BAK ECONOMICS, 2017

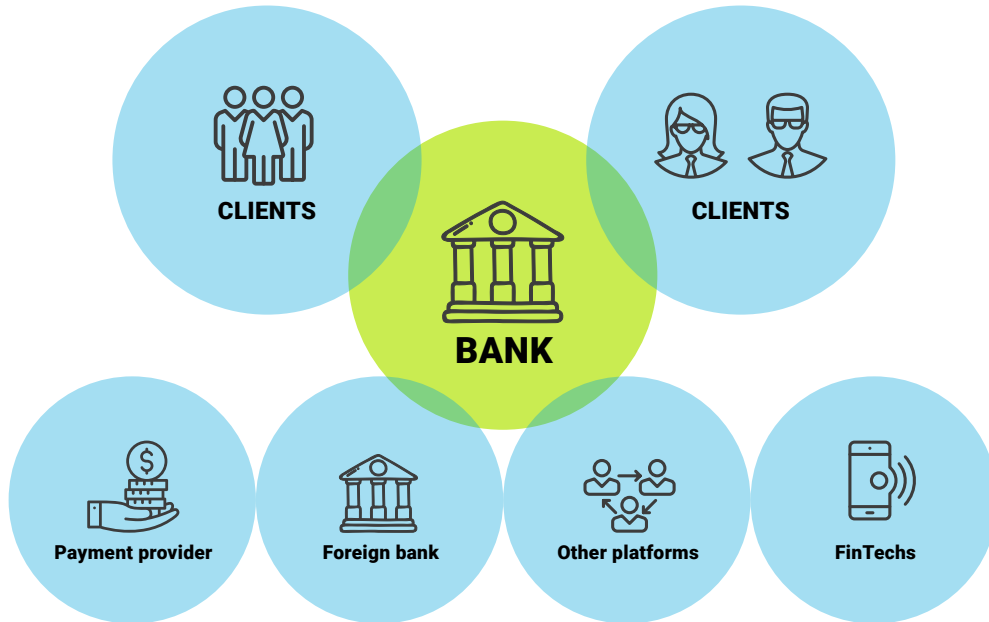
## Direct and indirect added value in the Swiss financial sector



Source: BAK Economics, 2019

# BANKS AS ECOSYSTEMS

Financial ecosystems. The bank remains the interface to the customer.



Source: Capgemini

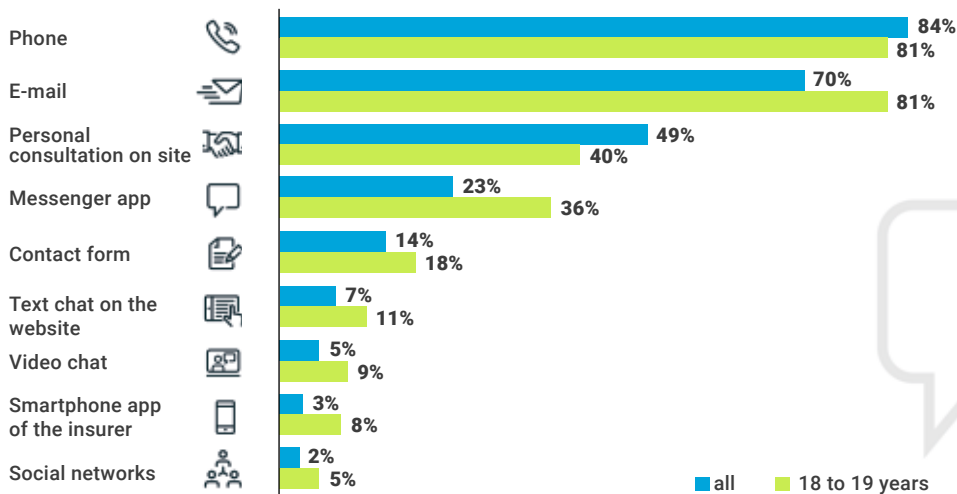
More than 60% of bank customers can imagine obtaining “foreign” services from their financial institution, such as ...

Multiple answers possible	Number of entries						
	100	200	300	400	500	600	
Insurance services	[Bar representing 16% of 1000 entries]						16%
Real estate search service	[Bar representing 15% of 1000 entries]						15%
Comparison services e.g. for mobile phones	[Bar representing 11% of 1000 entries]						11%
All about moving house	[Bar representing 10% of 1000 entries]						10%
Others	[Bar representing 6% of 1000 entries]						6%
Concierge Services	[Bar representing 3% of 1000 entries]						3%
None of the above services	[Bar representing 39% of 1000 entries]						39%

Source: Lucerne University of Applied Sciences and Arts IFZ Zug, 1367 entries from 1000 people

# HOW CUSTOMERS WANT TO COMMUNICATE WITH THEIR INSURANCE COMPANY

FACTS & FIGURES



Source: bitkom

**5%**  
Video chat

**49%**  
Personal consultation on site

**3%**  
Smartphone app of the insurer

**2%**  
Social networks

**84%**  
Phone



**70%**  
E-mail





# CONSEQUENCES OF THE COVID-19 PANDEMIC FOR THE FINANCIAL SECTOR

**4.000.000.000.000 \$**

Total damage expected to be caused by the COVID-19 pandemic in the global insurance market, which are 4 trillion US dollars.

Source: Facio

**20%**

Lower in 2020 will be the global revenues of banks on average under the influence of COVID-19. It is expected that one in eight banks will move into the red.

Source: Kearney

# NEW OPPORTUNITIES IN THE POST-CORONA PERIOD

Despite the massive economic slump in the wake of the corona pandemic, board members of insurance companies in Germany expect in a survey positive long-term changes for the industry:

**93%**

Digitalization boost

**93%**

Making working models more flexible

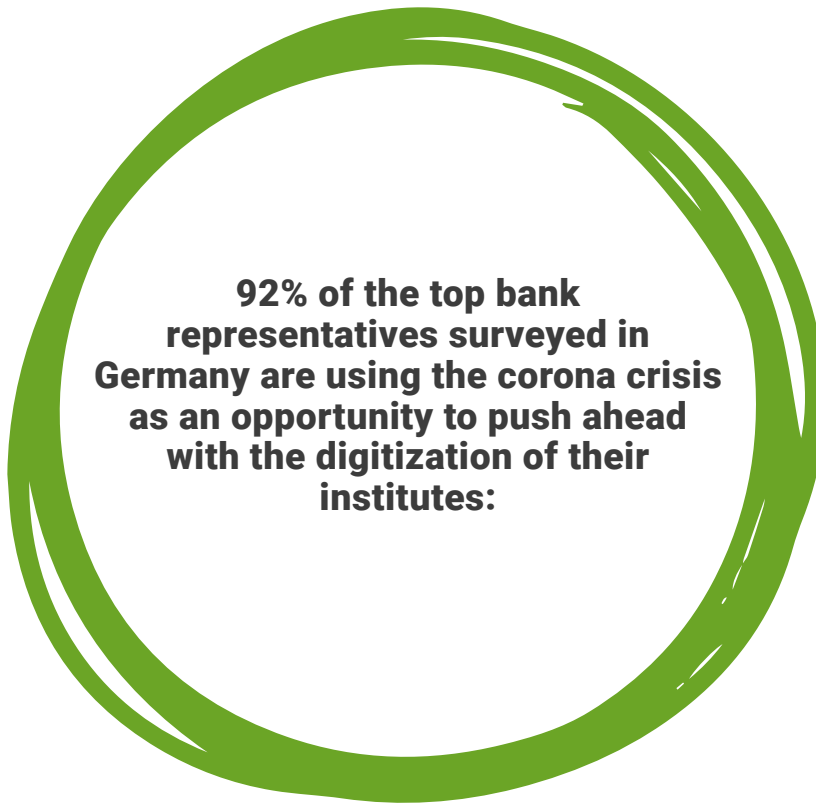
**70%**

Modernization of the sales/distribution systems

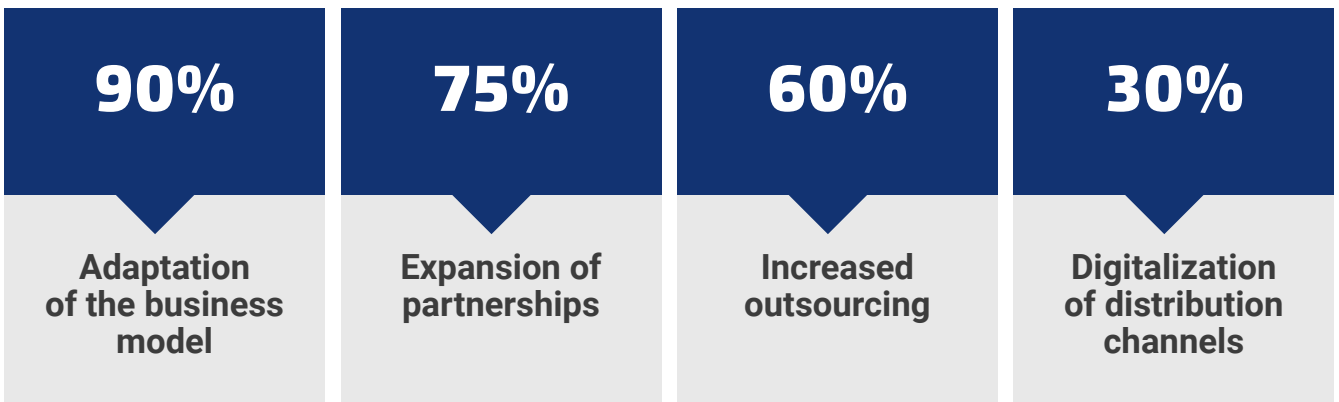
**41%**

Development of new customer interfaces

Source: EY/V.E.R.S. Leipzig GmbH



FACTS & FIGURES



Source: PwC

# AGILE TRANSFORMATION: GETTING IT RIGHT

by Christian Glück, ERNI

AGILE TRANSFORMATION



**For a long time, traditional companies such as banks and insurers, with their well-established working methods and rigid structures, were considered difficult to change. But in the meantime, agile start-ups have brought a breath of fresh air into the industry and created a new customer experience. Many established players are reacting to this challenge by learning from the approach of the disruptors.**

The magic word here: Agile Transformation. The working methods and frameworks used here – such as Design Thinking, Scrum, Kanban, SAFE or LESS – aim to better understand the customer and to develop new products and services faster on this basis.

In most cases, the process starts with an innovative idea, from which a so-called Minimum Viable Product (MVP) is built. This is continuously validated by the customer and this feedback is then incorporated into ongoing development and optimization. This is why the product is never finished and changes until it really meets the customers' requirements.

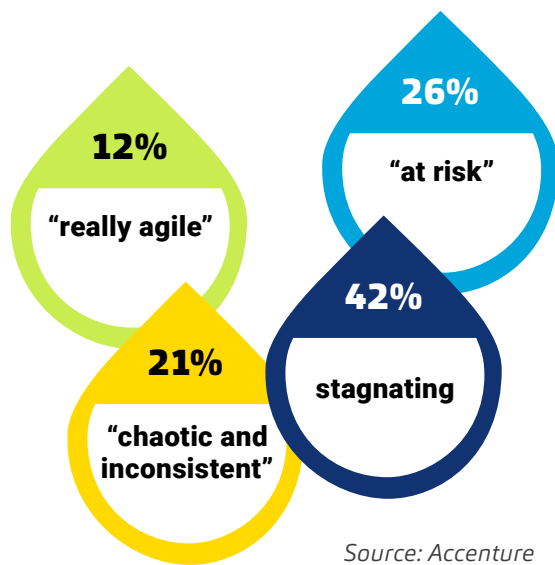
**Experimentation must be allowed**

Work is done across departments and without hierarchies – everyone who can contribute to the success of the product is sitting in one room. Agile teams work like own small companies. They implement product development iteratively over several months in several sprints, each of which incorporates feedback from the previous period.

The prerequisite for this is a corporate culture in which experimentation is not only allowed but explicitly desired. Employees should become entrepreneurs who do not think in boxes, but who are characterized by the willingness to take responsibility and the ability to create and drive innovation.

**Financial service providers are just getting started**

According to a study, only 12% of the financial service providers surveyed are “really agile”. 42% are stagnating, 26% are considered at risk, and the remaining 21% are acting chaotically and inconsistently. According to the study, the “really agile” organizations are characterized by the fact that they pursue a company-wide approach instead of launching isolated change programs or individual agile initiatives. Their chance of achieving top results is thus – according to the survey – considerably higher than that of an average organization.



Where do the much-lamented shortcomings in the financial services industry come from? Banks and insurance companies usually have IT infrastructures that have grown over many years, as well as complicated interface architectures. Above all, however, they are subject to strict regulatory requirements. And this is precisely the problem with agile transformation. After all, the result is a rapid response to changes in customer needs and the market. This requires, for example, continuous delivery of software updates in order to offer new features quickly. However, outdated IT architectures and little or no automated testing makes it difficult or even impossible.

### DevSecOps considers the security

The DevOps approach, a combination of software development and operations, leads as part of the agile transformation to an improvement in software quality, faster development and better cooperation of all teams involved. Automated testing as well as active monitoring and secure operation of the solution are taken into account and co-developed right from the start.

Although this method provides the basis for agile further development, it has a decisive shortcoming in the financial services environment: Often the time available is no longer sufficient to check the software code for errors and weaknesses in accordance with the strict regulatory requirements.



With DevSecOps – development, security and IT operations are combined – the DevOps approach is extended by the important factor cyber security. As a result, IT security no longer has a negative impact on the speed of development because it is already taken into account during the development process and implemented accordingly. Companies remain agile and can still meet all compliance requirements in the financial sector.

### Collaborative approach for more agility

In order to successfully support financial service providers on the path to agile transformation, ERNI looks for a method and procedure that suits the respective customer in each individual case – without a fixed doctrine or specification. And this is also our approach: without actionism, but with a lot of analysis and always with the big picture in mind.

Because even though it is usually a matter of making individual teams more agile first, we must still look at the company as a whole, from product management, quality assurance and regulatory affairs to information technology and the customer experience.

For this purpose, we usually conduct a FIT GAP analysis, i.e. we look at the fields of action that come into question and ultimately recommend an appropriate approach for change. We take a collaborative approach to the process, take feedback at any time and accompany the entire process. In the beginning usually more closely, later less. The whole process can also take two years.

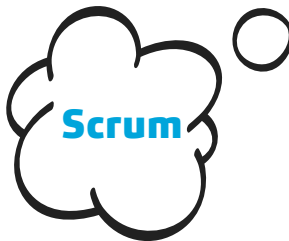
This approach also works in highly regulated environments such as the financial services sector. For a very classic project-oriented customer, for example, we first of all took the best practices from the various agile frameworks and thus proposed a tailor-made process model. Only in the second step were the regulatory requirements anchored in the processes, making them robust enough to meet all requirements. ERNI has the expertise from both worlds to find a viable compromise for banks and insurance companies. After all, in a regulated environment, certain documentation tasks or security regulations are simply part of value creation.

### Preventing the most common errors

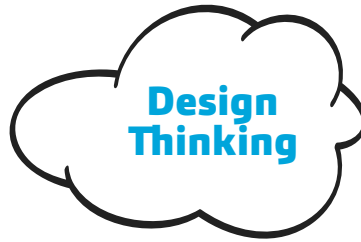
It is not very promising to make an entire organization or a company with fixed hierarchies “agile” in one go. Because the work is done by people who have to be picked up where they currently stand. That is why we start where we see the best leverage and where we can achieve rapid changes. Because nothing convinces team members more than visible success.

What is important here is the will to develop into a truly learning organization. This means moving away from the rigid, hierarchical structure and thus constantly reflecting on what has been achieved. I could also say: strengthen the good, change the bad, and in doing so constantly ensure the flow of information and work. To achieve this, employees must become real co-thinkers who do not remain in pigeonholes, but are willing and able to take on responsibility.

**DevOps:** Bringing together development and IT operations, taking into account six so-called core principles in system administration and software development



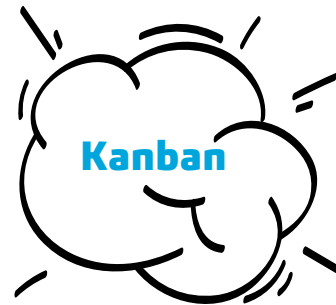
**Scrum:** Framework for general project management, especially in software development



**Design Thinking:** User-centred innovation approach for complex problems and challenges



**Agile Leadership:** Leadership and team building on the basis of newly defined employee responsibility and the establishment of self-determined teams



**Kanban:** Visualization and optimization of workflow management to ensure a continuous workflow

This is also where most mistakes happen: too much ambition, too much action, unclear responsibilities. There is indeed the will to become more agile. But not the willingness to pick up all those who are affected by it where they stand now. But the employees are the ones who are supposed to implement something. That's why a decision is also important at management level that is clearly made and communicated just as clearly.

Often, however, agile transformation also fails because employees are only used to "command and control" in their work. Now, however, they are suddenly expected to take on a role that demands self-organization and is intended to promote this in the long term. This requires good supervision and professional coaching. Last but not least: Often too many initiatives are started at the same time and the overview is lost.

If there's one thing we always give our clients on this topic, it's this: old, traditional hierarchies are outdated, what's needed is a new way of working together and the willingness to constantly change oneself, one's role and the company. Because an agile transformation is actually never finished.

This also applies to our own working methods. I would like to refer once again to the client from the highly regulated environment: during our 18 months of work on the project, we also trained the employees who will be dealing with the topic of agile transformation in the long term and are now driving it forward in a sustainable manner. This has now been running very steadily for over a year and the customer is no longer dependent on us.



**Christian Glück**  
Principal Consultant  
[christian.glueck@erni.ch](mailto:christian.glueck@erni.ch)

**ERNI Switzerland AG**

# HOW AI PAYS OFF IN THE FINANCIAL SECTOR

by Wicher Visser, ERNI

ARTIFICIAL INTELLIGENCE



Artificial intelligence (AI) is conquering the financial world: 91 percent of CEOs of banks believe that the technology will fundamentally change their business. No wonder: after all, AI not only paves the way for massive efficiency gains in the financial industry. It also contributes to a better customer experience. But beware: implementing appropriate solutions requires careful consideration and planning.



## Hardly any other sector is better suited for AI deployment than the financial sector. Banks and insurance companies have access to immense data treasures.

For a long time, banks and insurance companies were considered to be the brake on AI, but the industry is now gaining momentum. This is the result of a joint study by the World Economic Forum (WEF) and the University of Cambridge. According to the study, 77 percent of decision-makers believe that AI will have a high or very high overall importance for their company in the next two years. Especially in risk management, AI applications offer banks and insurance companies immense opportunities for optimization. Even today, intelligent chatbots are already providing support for their human colleagues in customer service in many areas.

### Wide range of applications for the financial sector

“And that means that the technological potential is far from exhausted,” says Wicher Visser, Service Lead Data Science & AI at ERNI. Hardly any other sector is better suited for AI deployment than the financial sector. Banks and insurance companies have access to immense data treasures. For example, they not only know when a customer buys a new car, but also which brand he or she will choose. “Machine learning and artificial intelligence can be used to derive important insights for new business models and services,” says the ERNI expert. For example, by adapting product recommendations specifically to the behavior and needs of individual customers.

In addition, AI opens up a wide range of further potential for banks and insurers: These range from smart asset and portfolio management to the automatic optimization of stock portfolios and innovative customer services to highly efficient compliance management. According to experts, AI is particularly suitable for lending, combating money laundering, fraud detection, personalized financial planning and process automation.

According to experts, there are three different starting points for strategic AI deployment in the financial sector

#### “Augmented Human Intelligence”

Data and intelligent algorithms provide employees with real-time evaluations or product recommendations. The business model and value chain remain essentially unchanged. People still make the decisions, but are supported by recommendations from the algorithms.

#### “Machine knows best”

In this scenario, smart robots are trained for different use cases on the basis of machine learning concepts, where they completely replace human intelligence. At many financial service providers, for example, chatbots qualify incoming inquiries and thus relieve the human colleagues in the contact center.

#### “Data is king”

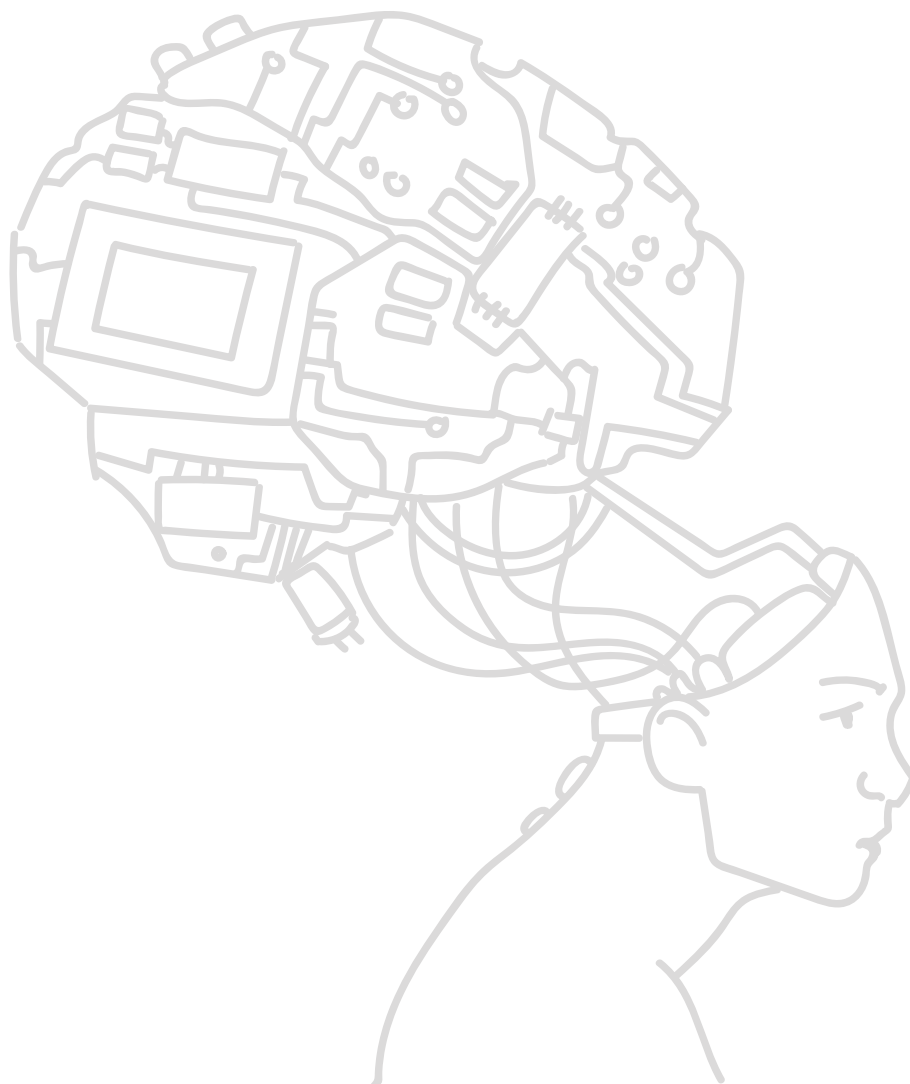
With this approach, intelligent data use is an integral part of the corporate strategy. For example, banks and insurance companies can establish virtual assistants who advise customers on financial decisions and then implement them independently.

For an Asian development bank, for example, ERNI has developed a solution in the field of “cognitive search”. The public financial institution is faced with the challenge of having to generate large amounts of project documents when applying for funding. The solution proposed by the ERNI consultants consists of a chatbot with natural language processing, which collects, aggregates and disseminates the necessary information. With the help of the SAFe framework, an agile programme structure was developed in which value-added processes could be integrated. In the development process, the product vision was turned into a Minimum Viable Product (MVP) and finally into the initial story map. “Our tasks also included the development of use cases and the specification of user stories,” reports Wicher Visser. As well as the development of rollout and implementation concepts.

“Which scenario is suitable for the individual financial service provider always depends on the individual AI maturity level of the company,” emphasizes the expert. There is no standard AI solution for all the requirements and problems of the industry. “Different business strategies require different solutions.”

However, the existing data treasures alone are not sufficient for the successful use of artificial intelligence. Instead, it is also necessary to apply organizational levers. This includes, for example, providing sufficient computing capacity, ensuring smooth cooperation between AI teams and departments, and ensuring that all employees are aware of the possibilities and effects of AI deployment.

“AI can only develop its full effect if employees and management stand behind the concept,” the ERNI expert pleads for careful change management.



**Minimum effort, maximum result**

Not every challenge can be met ad hoc with the help of AI. “Often the necessary framework conditions are simply not in place,” says Wicher Visser. He therefore recommends that banks and insurance companies determine the level of maturity of their own company’s AI before developing an AI strategy.

ERNI’s “AI Coverage Analysis” helps in this process. Using defined criteria, the service assigns financial service providers to one of five AI maturity levels. “In our experience, most financial institutions are currently still in the preparation or test phase or are implementing their first island projects,” says the consultant, referring to the primarily opportunistic AI approaches of the industry.

After determining the current situation, the implementation follows: Wicher advises companies to focus on AI techniques with a mature track record – for example in the area of customer lifecycle management. This is because the smart transformation of core systems is highly complex: On the one hand, missing AI interfaces, inconsistent data, information silos and a lack of know-how make implementation in this area difficult. On the other hand, high regulatory and data protection requirements also contribute to the immense complexity.

According to the WEF study, almost 40 percent of those surveyed believe that regulation hinders the implementation of AI solutions. This is particularly true for the core business. In other areas – such as customer lifecycle management (Box 1) – smart scenarios can be implemented comparatively easily. This is one of the reasons why many banks and insurance companies are currently focusing their AI activities on the customer experience.

“In our Prototyping Lab, innovation managers and AI experts work hand in hand to best support the transformation of our customers into fully AI-driven financial service providers”.



But here, too, the rule of thumb is that haste makes waste. It is therefore important to take the time to identify individual business benefits in a targeted manner and to develop appropriate AI applications that fit the bill. ERNI offers the necessary tools for this. “In our Prototyping Lab, innovation managers and AI experts work hand in hand to best support the transformation of our customers into fully AI-driven financial service providers,” says Wicher Visser. ERNI’s services range from design-thinking workshops for the development of smart business models to rapid prototyping and validation. These are optimal conditions for providing intelligent solutions efficiently, in line with requirements and in a sustainable manner.



**Wicher Visser**  
Service Lead Data Science & AI  
[wicher.visser@erni.ch](mailto:wicher.visser@erni.ch)

**ERNI Switzerland AG**

ARTIFICIAL INTELLIGENCE



### Using machine learning for personalized product recommendation

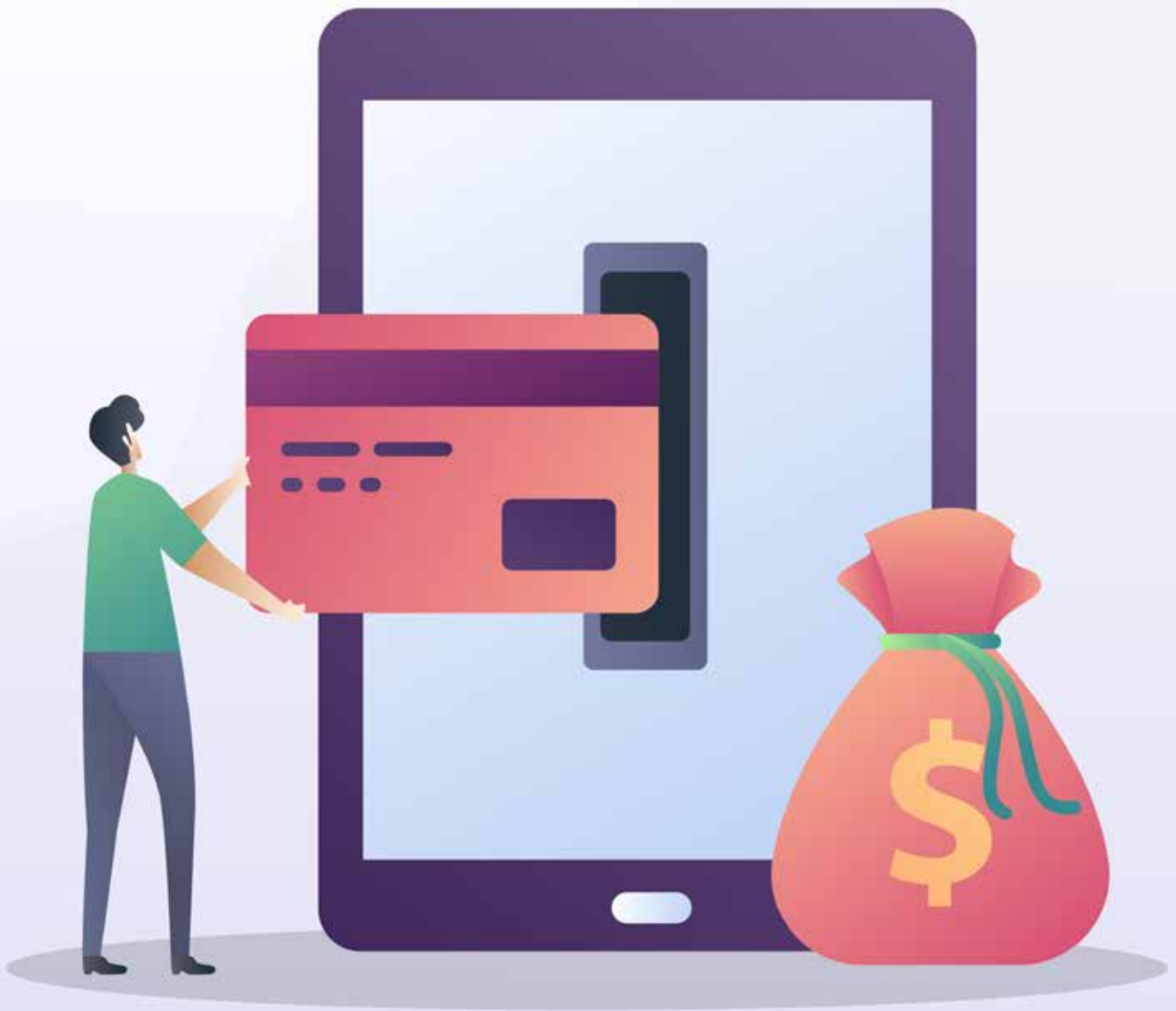
by Sothy  
Yogarajah,  
Senior Data  
Scientist,  
ERNI  
Switzerland AG

The financial industry is in a state of upheaval: FinTechs and direct banks are forcing their way into the market, contactless payment methods and mobile banking are gaining in importance, and bank customers are increasingly digital and willing to experiment. The generation of digital natives is less responsive to traditional advisory services. In order to get this target group excited about products, banks must therefore take innovative approaches.

And that is easier said than done. Digital natives tend to be uncertain in their decisions and can be easily influenced by influencers or peer groups. But that does not mean that these customers aren't unpretentious. On the contrary: digital natives also expect transparent and personalized solutions from their bank that are precisely tailored to their needs.

While streaming providers such as Netflix or Amazon can give their users suitable recommendations based on previously viewed films relatively easy personalized product offers in the financial sector are much more complex. After all, it's not just a matter of getting to the heart of the customer, but of motivating them to make a lasting change in their behavior when dealing with their own finances. Let's talk about "investment": A digital native, who, in comparison to his peer group, leaves a lot of money in restaurants and pubs, but has put much less funds aside for a rainy day, starts to ponder when this is made clear to him in a very vivid way: and is possibly more willing to sign a savings contract. However, this requires a personal consultation that is tailored to his needs.

Smart data analysis, machine learning and recommendation tools provide the basis for this. These tools make it possible to compare the behavior of individual customers with that of their peer group and to derive personalized offers. Since these are comprehensible and justified, the customer takes a positive view of the recommendation. The special feature of the concept: Instead of defining peers using classic socio-demographic or socio-economic attributes, smart algorithms take over the composition of the comparison group. The intelligent tools reduce the risk of subjective influence and ensure that the evaluation results are not distorted by filters or prejudices. This increases the objectivity of the recommendations – and thus their acceptance.



ARTIFICIAL INTELLIGENCE

# CUSTOMER-CENTRIC INNOVATION: THAT'S HOW IT WORKS!

by Patrick Wilhelm, Service Lead Innovation, ERNI

Even the best product idea is useless if it misses the point. This makes it all more important to gear innovation management specifically to the needs of customers and markets. For this to succeed, seamless interaction between innovation management and data science is essential. This is because on the one hand, data-based findings facilitate market validations in the field of innovation, but on the other hand they also help to align concrete innovation projects specifically with user needs.

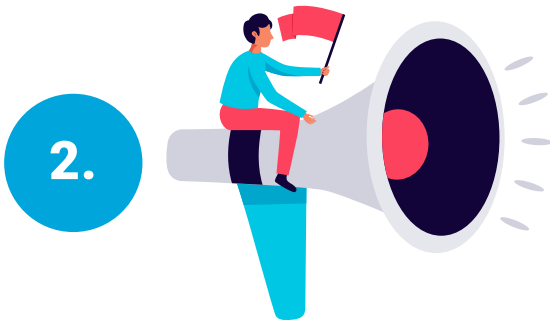
At ERNI, too, close cooperation between the fields of innovation management and data sciences within the framework of innovation projects is the order of the day. This usually involves the use of agile working methods. Such as the Design Thinking approach. In innovation projects, this approach specifically focuses on the user's perspective and thus helps to implement customer requirements precisely.

## This essentially requires three steps:



### Insight

The first step is to understand the challenges. Methods from service design, such as user research by means of contextual inquiries, help to achieve this. The advantage: the combination of qualitative user research and explorative data paves the way to valuable insights – and puts the project team in an ideal starting position.



## Idea

The search for suitable solutions does not begin until the initial situation, challenges and objectives are clearly defined. Different brainstorming techniques set the necessary course. At the same time, however, data-based findings also provide important navigation aids to suitable approaches to solutions.



## Implementation

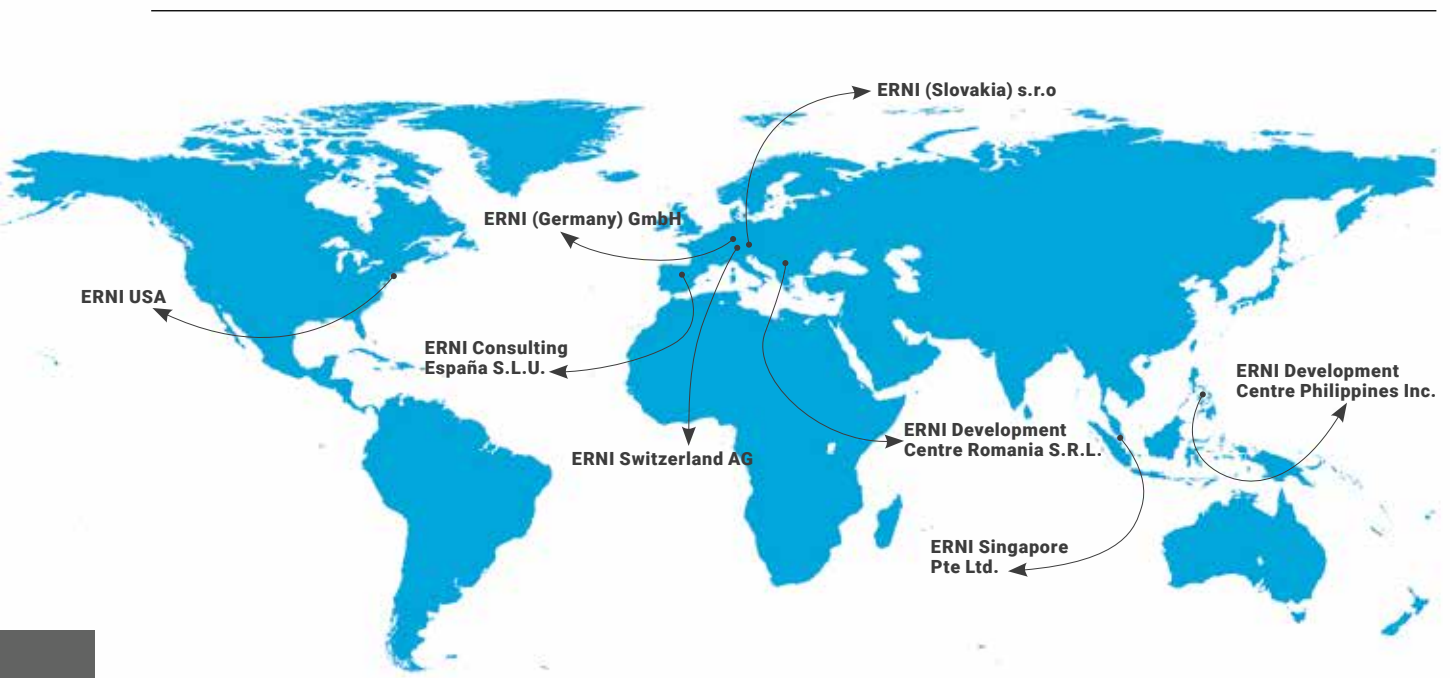
As soon as the first solution approaches are outlined, prototyping begins. Here it is important to visualize the solution as tangible and comprehensible as possible. Especially when it comes to understanding complex algorithms within a product, simple prototypes contribute to a better understanding. Another success factor: the involvement of the end-user. The more they are involved in the validation process, the better the benefit of the solution can be verified.

More information:



**Patrick Wilhelm**  
Principal Consultant  
Global Services Lead  
Innovation & Digital  
Business Consulting  
[patrick.wilhelm@erni.ch](mailto:patrick.wilhelm@erni.ch)

**ERNI Switzerland AG**



### About ERNI

ERNI stands for Swiss Software Engineering. What are we really interested in? How we can support you and your employees better than any other company in developing and marketing software-based products and services.

Our global platform for software development in combination with a sound understanding of the market forms the framework for our customers' success. Our team also implements complex projects, empowers people and delivers outstanding customer solutions in shortest time. We apply the Swiss mentality with behaviors such as consensus building, pragmatism, integration, reliability and transparency on a global scale – and this since our foundation in 1994. Together with our great team, which is the basis for successful software projects. Today, the ERNI Group employs more than 800 people worldwide.

### About .experience

In this magazine, which is published three times a year by ERNI, we provide information about important experiences that we have learned in our daily work in the areas of collaboration, processes and technology.

### ERNI

Swiss Software Engineering  
**betterask.erni**

### Publisher

ERNI Management Services AG

### ERNI Locations

ERNI Switzerland AG  
• Bern  
• Zurich  
• Lucerne

ERNI Suisse SA  
• Lausanne  
• Geneva

ERNI Consulting España S.L.U.  
• Barcelona  
• Madrid  
• Sant C. del Vallès

ERNI (Germany) GmbH  
• Frankfurt  
• Munich  
• Berlin  
• Stuttgart

ERNI Development Centre Philippines Inc.  
• Manila

ERNI Development Centre Romania S.R.L.  
• Cluj-Napoca

ERNI Singapore Pte Ltd.  
• Singapore

ERNI (Slovakia) s.r.o.  
• Bratislava

ERNI USA  
• New York

### .experience Magazine Contact

marketing@erni.ch  
T +41 58 2681200

### ERNI in the social networks

betterask.erni  
linkedin.erni  
facebook.erni  
instagram.erni  
youtube.erni  
twitter.erni

© 2020  
by ERNI Management Services AG





**ERNI**  
Swiss Software Engineering  
**betterask.erni**