

Impacts of the technology on the workforce in the banking industry in Switzerland

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by

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This report is submitted as part of the final examination requirements of the Haute école de gestion de Genève, for the Bachelor of Science HES-SO in International Business Management. The use of any conclusions or recommendations made in or based upon this report, with no prejudice to their value, engages the responsibility neither of the author, nor the author's mentor, nor the jury members nor the HEG or any of its employees.

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Executive Summary

The Swiss banking system stands out from its internationally recognized performance and reliability. The Swiss banking pool of companies has different profiles: cooperative, private banking, detail banking, cantonal banks, etc. However, all of them do have the same particularity: they have a rigid structure and are reactive rather than proactive with regards to technology and its leverage in their business model.

Indeed, with the arrival of different kinds of competitors, the changing needs of the customers and the existence of new technological solutions, Swiss banks find themselves obliged to reinvent their services and products in order to offer innovative solutions to their customers, such as Blockchain, robots, artificial intelligence, payments solutions and a lot more. Unfortunately, Swiss banks are not able to fully exploit the potential of these new technologies because they are lacking human knowledge. Indeed, their current workforce is not yet able to develop disruptive solutions enabling them to keep their strategic position facing the emerging Fintechs, the GAFA and the digital banks.

Within this research, it has been discovered that the Human Resources (HR) Department of banks play a strategic role in the building of the human capabilities of banks. Thus, this department is key and needs to apply specific strategies with regard to the support of the workforce in times of digitalization. Consequently, the aim of this research paper is to present and explain a detailed roadmap for the attention of HR specialists within banks. The roadmap can be applied in the context of the banks' digital shift and includes five strategic steps:

1. approach definition;
2. capability auditing;
3. capability building;
4. capability monitoring and
5. continuous improvement.

Beside this roadmap, there are also some recommendations that banks could take into consideration relating to the strategic human resource management. Indeed, the bank's management team should understand that digitalization implies a different way to conduct business. The human skills are now crucial and can represent an important strategic competitive advantage. The workforce can be the source of innovation but can

also be impacted by it in different ways: the nature of their jobs, their employability, their level of digital knowledge, their composition within the company, etc. Thus, the employees need to be accompanied and supported. Their individual profiles should be studied in detail in order to determine their real value within the company.

Hence, the employee experience is becoming individualized and the workforce strategic management is becoming complex. Therefore, there are emerging practices that should be considered by the banks' HR team such as:

- definition of the digital vision and culture;
- talent management;
- workforce knowledge management;
- set up of digital initiatives;
- employee experience;
- learning management;
- leadership.

All these practices will be discussed in the last part (Recommendation) of this document in order to expose the current strategy used within different industries and reflect on their possible application within banks.

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1. Introduction

This research intends to understand the current environment of banks in Switzerland and how the ongoing changes (regulations, competition, technology, ...) have enforced banks to reinvent themselves by leveraging digital. This paper strives to understand the role of the HR as a support for the workforce and the company strategy.

The substance of this report is from deep interviews, surveys, literature deepening and case studies. All this approach aims to answer to the research question on the future of the banking workforce which is *“how to dive into digitalisation while having the workforce onboard?”*.

The main focus of this paper is the analysis of the HR environment facing digitalization and some relevant recommendations to the HR enabling them to build the long-term capabilities of the banks and manage their most precious assets: the human capital.

2. Literature review

“Banks have been chasing the digital transformation ever since the creation of Fintech, when tech giants started imposing changes and creating new platforms for doing business. As such, digital banking has become the key pillar of any bank’s strategic evolution in today’s highly competitive environment.” (WorldFinance.com, 2019). For some banks, leveraging digital banking needs a digital transformation from within the bank. “The need for adaptation and innovation is therefore not new but financial institutions admit that the changes brought by the digital revolution are faster than the previous structural changes. The stakes are high because the digital transformation, which involves new players is more unpredictable, decentralized and faster; therefore, it calls for greater agility.” (edhecstudentfinanceclub.com, 2020)

Thus, “two transformation processes need to take place: a transformation of the business model in order to make it future proof for the digital age and, in parallel, a transformation of the entire workforce aimed at developing and strengthening the necessary digital competencies and digital mindset.” (Rundstedt.ch, 2020). Indeed, some key trends such as the emerging payment solutions, the alternative lending, the crowdfunding and other more (WEF, 2019) are driving the disruption in financial services. These changes are impacting not only the work environment of bank professionals but also the business model itself.

As a result, “the accelerated pace of technological innovation has given birth to new business models at an even faster speed. In this rapidly changing landscape, the competitive advantage will come from being fast and nimble, and banks must embrace digital forces to innovate in smaller, bolder cycles” (Fintechnews.ch, 2020). Therefore, “in order to prepare for the future, banks should assess their own capabilities compared against those of their peers and thoroughly assess their strengths and weaknesses. Next, a deep understanding of the recent developments and trends in the financial industry needs to be developed and shared across the organization” (Deloitte, 2020). In other words, banks should reflect on the opportunities offered by the technology to reinvent themselves.

Beside the alteration of the business model, “there is also a strong, but not necessarily urgent, awareness that digital transformation will change job profiles and requirements in a profound manner. In order to develop and foster the necessary changes, a strategic and comprehensive approach in the sense of a workforce transformation is advocated” (Rundstedt.ch, 2020), but what is this strategy and which kind of approach should be

adopted to transform or support the workforce? This is the question which will be discussed throughout this research paper.

According to the Association of Swiss bankers, maintaining the employability of employees in the banking sector is a key success factor. The principle of employability maintenance is emerging as companies find it important to invest in the digital skills that matter for the company. Indeed, “organizations that invest in people, and align the values and mission of the company to employees, set the stage for working with purpose. Ultimately, this creates an ecosystem that promotes learning, experimenting and growth” (Capgemini.com, 2020). All these aspects of value, mission, digital ecosystem, employability maintenance, etc. needs to be reviewed within all the financial companies.

Moreover, “business model disruptions will have a profound impact on the employment landscape, leading to both significant job creation and elimination, potentially heightened productivity, and almost certainly wider skills gaps. Given the likely depth of technological disruption to jobs, there is a pressing need to come up with more effective ways to facilitate the acquisition of skills and address job loss.” (Gartner, 2018). Regarding the employee acquisition, attracting them has become a challenge as the most demanded specialists are not always interested to join a non-IT company. Only a few banks have understood this. Thus, “few traditional banks have turned data, analytics, and AI into priorities, and even fewer have integrated these capabilities into their core processes. Also, it is the rare bank that has come up with distinctive value propositions to attract top engineers, data scientists, and user experience designers.” (BCG, 2019).

Attracting talents, nurturing them, and managing their knowledge have become part of a bank's strategy. Thus, the Human Resources needs to step into the company's strategic management. The HR role in the midst of the digital transformation, their implication towards technological disruption, the strategy they should adopt and the adjustment in the management they could set up are different from a bank to another. Today, no specific literature does exist on these HR digital challenges. Thus, this research paper will aim at discussing these aspects.

3. Methodology

This section explains the methodology used to approach the research objectives and answer the research questions.

3.1 Research approach

First of all, the establishment of this research paper is possible thanks to the utilisation of several method approaches. Indeed, a mix of quantitative and qualitative research has been used. Moreover, some academic literature has also been exploited in order to address the research objectives which needed different angles and levels of insights.

The primary data are the information collected specifically for this study. They are aiming at understanding the current situation within banks with regard to adoption of new technologies and digitalisation management. The primary data come from bank professionals or experts in digital or human resources in Switzerland.

The secondary data are the information collected for another purpose and are already available from other sources such as the deep studies made by serious and renowned entities such as the World Economic Forum and other consulting firms such as Ernst & Young or Deloitte.

Regarding the academic literature, some former Master or Bachelor thesis have been consulted in order to realize the research already done in this area. Moreover, some relevant academic sources have also been exploited such as the slide decks of some lecturers in innovation, Fintech or human resources in the Geneva Business School have also been of help for the analysis beside the classical online research and the books regarding innovation within financial companies.

3.2 Primary data collection

The primary data are composed of information gathered from Swiss banking professionals through a survey and some interviews. The participants interviewed and surveyed come from different banks (retail banking and private banking) of different sizes. Moreover, some expertise advice has also been asked to some human resources specialists in order to validate the proposed roadmap and some insights of the research.

The questions asked during the online survey have been segmented in four parts. The first part is the evaluation of the necessity of the digital transformation according to the people surveyed. As employees, they have been asked in the second part of the survey how they evaluate the digital project management within their company. The third part

of the survey revolves around the possible implication of the digital transformation for the workforce and the company. The fourth and last part of the questionnaire is mostly concentrated on their experience with digitalisation as employee, their point of view on the skills needed to shine in this domain as well as their suggestion of actions which can be put in place within banks for a best transition to digital.

This questionnaire has been shared on LinkedIn and messaged to different banking professionals. It has been answered by 25 people, and its results can totally represent the reality given the relevance of the answers as well as the relevance of the people who took part of it.

The other source of primary data for this research is the seven interviews conducted with professionals from banks, digital and human resources. These interviews lasted approximately 45 minutes, and the questions asked differed according to the interviewee background, responsibility and experience. The goal of these meetings is to gather qualitative data regarding the implementation of the digital transformation within banks.

Some of the persons interviewed are willing to remain anonymous but generally speaking, they come from Private banking companies, are former employees from the greatest Retail banking in Switzerland or HR specialists within banks. The interviews revolved around digital maturity and transformation of their companies. The transformation strategy of banks, in general, has also been discussed as well as the stakes and the challenges encountered by the sector at the moment, relating to the digital transformation. The question of application of Fintech within banks and its threat has also been discussed. This discussion leads generally to the definition of the job of the future within financial companies and the measures in place to support the employees in the transition to digital.

The results of these interviews are more than relevant given the extensive experience of the interviewee, the sources they suggested to investigate as well as their proposition of reflection to be dug as part of this research.

3.3 Secondary data collection

As part of the secondary data, there are some researches and surveys conducted by some consulting groups which have been of help for this analysis. Some of the most important papers used are the ones listed below :

- The Future of Financial Services, from World Economic Forum, 2015;

- Innovation in Private Banking & Wealth Management, from Deloitte, 2017;
- EMEA Digital Banking Maturity Study, from Deloitte, 2018;
- Six Digital Growth Strategies for Banks, from McKinsey & Company, 2018;
- Accelerating Reinvention with Digital Banking Frameworks, from IBM Institute for Business Value, 2018;
- Unlocking Success in Digital Transformations, from McKinsey & Company, 2018;
- The Banking Human Experience, from Accenture Interactive, 2019;
- Accelerate Digital, from Infosys, 2019;
- Survey on Digitalisation and Fintech at Swiss Banks, from Swiss National Bank, 2019;
- Industrializing innovation in Financial services: The path to acceleration and scale, from E&Y, 2018.

4. Results

A summary of the survey conducted is consultable in the Appendix. The result of this survey represents a valuable asset on which the continuation of the research has been based. Indeed, these are the key takeaways of the survey conducted:

- The people surveyed agreed on the fact that the digital transformation is a major challenge that the banking sector is facing today. The digital transformation has an impact on the human resources of companies as it likely transforms the nature of work, empowers the workforce to be on the move to digitalization.
- Generally speaking, the employees are aware of the digital vision of their company; they understand the ongoing transformation and approve them. However, only half of the people surveyed participated in the digital transformation itself.
- Regarding the consideration of the employees in times of digitalization, the companies represented among the survey participants are doing a good well with regard to the support and accompaniment. Moreover, the internal organization of their companies is adapted to the current challenges behind the transformation although the existing management team should be adapted.
- The main challenge of banking companies today is the management of digital projects. According to the participants, the management team does not invest enough resources in the digital transformation.
- In the future, the lack of support to employees should be challenging. Therefore, training and empowerment of the workforce should be put forward beside many other ways.

Therefore, the elements on which companies should work on are: the accompaniment of employees and the commitment of the management to digital transformation. Thus, these elements are the main focus of this research.

5. Discussion

5.1 Swiss banks environment

Switzerland has always been one of the most important and competitive financial hubs around the world. In 2018, Switzerland counted 248 operating banks within its territory. The banking sector is one of the most important pillars of the Swiss economy because it represents around 4,7% of its GDP, employs approximately 6% of the Swiss workforce (the equivalent of 105'000 full-time staff) (eda.admin.ch, 2020) and generated an aggregate profit of 11'514 million of Swiss Francs (snb.ch, 2018) in 2018.

While analyzing the Swiss banks macro environment, the Legal, Social and Technological aspects are the dimensions which have the greatest impact on the banks' activities at the moment. The Legal aspect is explained by the will of Switzerland to maintain its banking flourishing activity; the country put in place some international regulations relating to tax concerns, money laundering and the stability of the financial market but also set up legal conditions and rules so that the financial industry can offer products and services of quality and on the cutting edge of innovation. The Swiss regulations related to the financial industry are always in constant change to ensure the security and stability of the financial system and to protect the customers.

The Social aspect impacting the bank industry is mainly characterised by the changing customer behaviours. Indeed, the new bank consumption of the Swiss citizens is evolving : the responsible investing is growing, the e-banking is being adopted by the users and some customers are eager to experiment with Fintech and digital banking. All these aspects are incentives for the banks to remodel their offers to nurture their existing clients and possibly target new ones. There are three main profiles of customers today : (1) the nomadic who are the least loyal who are keen on using digital solutions, (2) the best-deal hunters who focus on price and (3) the quality-seeker who select their bank based on their proactivity and the security of their data (Accenture, 2017). Thus, Swiss banks need to juggle and refine a strategy which responds to the needs of these three types of customers in order to satisfy and maintain the maximum of them.

The Technological aspect is related to the digital evolution aiming at improving the banks infrastructure, the customer or employee experience and the new technologies adoption. Indeed, almost every bank is today exploring the digital possibilities which can be implemented internally and could enhance the user experience and the institution's efficiency. According to a survey conducted by Deloitte in 2018 on 238 banks across 38 countries in EMEA, Swiss banking sector can be considered as digitally mature thanks

to the presence of innovative Fintech companies as well as other innovative banking services and performant financial infrastructure.

All the three aspects of the bank environment mentioned below, but especially the technology aspect would shock different components of the banks functioning and eventually the nature of the employees' work and more generally, the workforce as a whole.

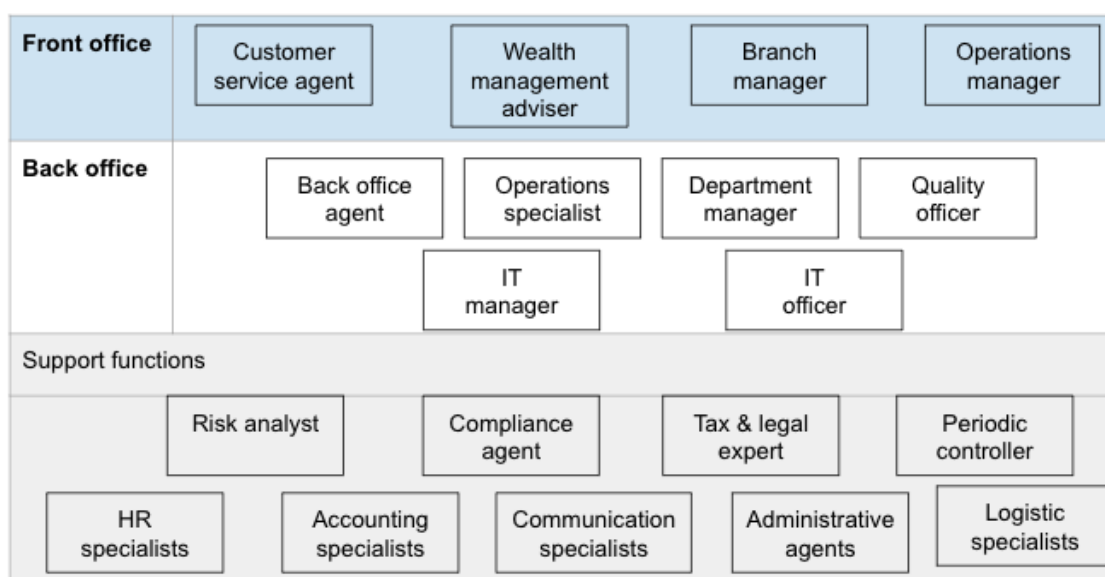
5.2 Current Swiss banks workforce

Swiss bank's workforce is facing a steady decrease since the financial crisis of 2008 and the arrival of some new technologies accelerate this reduction in workforce because some tasks are being automatized or replaced by algorithms. On the other hand, the sector is also facing a hard time in talent sourcing. Indeed, according to a research by the association of bank professionals Employeurs Banques in 2017, banks are struggling in finding the perfect talent for the jobs relating to customer care, risk management, credit management and IT. For these positions, the process of recruitment can exceed five months before finding the perfect match. Thus, the banking sector is facing a shortage of specialized and qualified personnel.

However, the banking sector is gradually adapting its workforce to better face and respond to the digitalization but the reality is that they are not fully ready yet to undertake digital transformation. One of the barriers for the digital transformation to happen is the lack of talents on hand, the lack of competencies to benchmark the Fintech companies and the unavailability of workers to lead digital projects.

Hereafter is a simplified cartography of the current jobs composition of the bank's workforce (rather traditional). The first part of this research paper will aim at analysing and commenting this cartography in order to determine how these key jobs within banks are impacted by the technological evolutions.

Figure 1 - Simplified cartography of the current workforce



The proportion of workers working in each level of service (front or back office and support functions) varies depending on the type of bank (retail banking, wealth management or investment management). However, there is a common trend in terms of proportion between the three levels. As the direct contact with customers is minimized, banks are cutting jobs in the front office or are transforming them. The back-office is the backbone of every bank and generally regroups the greatest portion of employees (from 25 to 75%) depending on the size and the type of bank. Finally, the support functions are the responsibilities which can be centralized or outsourced. Thus, it is difficult to determine the workforce headcount of this portion of professionals.

However, there is a strong conviction that this current cartography of the banks' workforce is impacted by the ongoing digital evolution. There are job positions which are disappearing or are extremely being transformed whereas some jobs are emerging thanks to digital.

5.3 Case for change / Challenges and stakes

"Digital technologies have both the potential to help banks cut costs and seize new growth opportunities whilst at the same time being a vector for new competitors to change them". (BearingPoint Institute, 2015).

Moreover, thanks to the exploitation of technology by almost all banking companies, customers have a broader choice of company to choose from and a broader choice of products/service for better satisfaction.

As a matter of fact, the competition in the banking sector is increasingly fierce because of the arrival of new actors and the changing customer needs. The banks are encouraged to react to this tense situation to remain competitive. Thus, leveraging digital is most likely the best solution to counterattack. However, banks have not necessarily chosen to transit to digital, they have been enforced for competition reasons.

The shift to digital implies a lot of change within the company, including a shift in the Human Resources. This section aims to expose the actual challenges and realities which encouraged banks in Switzerland and worldwide to leverage digital.

5.3.1 Market conditions

Swiss banks are operating in a challenging economic environment: persistently negative interest rates and restrictions on market access are the main market features of the current environment. Margins continue to shrink and digitisation is booming in the financial sector. However, despite the uncertainties, the ongoing adaptation processes and the economic challenges that banks are facing, they are showing solid development. In order to pursue this solid development, they should adapt to the technological change and be aligned with the most recent technological practices of their sector.

5.3.2 Threat of competitors

Banks are also facing a tough competition mainly because of the arrival of new entrants in the market. These new competitors are mostly leveraging the technology in order to offer innovative products and services. The most important of them are the GAFA (Google, Apple, Facebook, Amazon) actors who have recently conquered the banking sector by offering financial products. Compared to the traditional banking companies, these big firms have three major advantages. On the one hand, they master the customer experience of their users. On the other hand, they have a very strong customer base (Facebook has 2 billion users, Google 900 million versus, vs 90 million customers at JPMorgan or 21 million customers at BNP Paribas). Finally, the GAFA has a real technological lead as they have 6 times more budget for R&D compared to the banks. (Agefi.fr, 2020). Thus, they represent a serious competitor to banks.

The online banks are also serious competitors for traditional banks. Indeed, even though they cannot fully replace the traditional banks, they are easier to use : the account opening is simplified, they allow a transparent insight on the expenses and reduce the fees for foreign payments and offer commercial advantages. According to a survey conducted by the Banque Nationale Suisse, digital banks will be the most serious competitors of banks in the next three years in different core banking activities such as mortgages management, payments, deposits, asset management, etc.

Lastly, the Fintech companies and their disruptive technologies can be seen as the most frightening competitors of the banks. The section 5.3.3 of this report has been dedicated to present the Fintech's possibilities and power.

To sum up, the table below summarises the current competitive environment of traditional banks :

Figure 2 – Competitive environment of banks

Mass retail payment and shopping cards with possibility of consumer credit <ul style="list-style-type: none"> - Carrefour - Manor (CH) - Migros 	GAFA expanding their scope of service <ul style="list-style-type: none"> - Google - Amazon - Facebook - Apple
Online banking <ul style="list-style-type: none"> - Fortuneo - Zak - Valiant - Bas - Neon Free 	Fintechs verticalising the market niches and are the e-payment actors <ul style="list-style-type: none"> - Leetchi - Revolut - Klarna - Bankin'

5.3.3 Availability of new technologies / FinTech

Financial technology or Fintech is the world of companies leveraging technology to offer better financial services to end users. Fintech companies are generally start-ups with a disruptive business approach and willing to create greater value to customers.

The number of Fintech companies has increased by three during the years 2015 to 2018 whereas the number of private banks has significantly declined during the same period

(Deloitte, 2018). This situation can be explained by the power of the technology used by Fintech companies and their innovativity.

Indeed, Fintechs generally offer solutions which by-pass banks. Therefore, banks should find new ways to remain competitive and demonstrate their strong and indisputable position in front of these emerging Fintech companies. The technologies presented hereafter are the main categories of innovative solutions offered by Fintech companies and also the technologies on which banks should work on :

5.3.3.1 Deposit & Lending

Deposit and lending consist of platforms enabling lenders, borrowers, entrepreneurs and investors to connect each-other and sign a deal directly without any intervention of a bank as financial intermediary. This is known under peer-to-peer lending. The most renowned actors are Kickstarter, Crowdrise or Razoo. This disruptive technology naturally impacts the demands of loans within banks and decreases their margin. Compared to traditional banks, the deposit & lending platforms offer more interesting advantages : it offers an easier access to capital for startups, offers a broader pan of investment to investors and provides the lenders with the borrowers who fit the most with their situations.

However, there are some elements which cannot be covered by these platforms yet such as the investigation regarding the creditworthiness of the borrowers, their ability to pay as well as their possible indebtedness. Therefore, banks can still offer a valuable competitive advantage with respect to Fintechs on this specific technology.

5.3.3.2 Payments

There are also new technologies that offer new payment and transfer solutions without necessarily using banking systems but only by leveraging mobile technology . Indeed, mobile payment is today applicable to Point of Sale (contactless devices), E-commerce (PayPal) and Peer to Peer (Twint). Naturally, the arrival of these payment solutions lead to a loss of customers, and consequently revenues, to traditional banks. Losing customers entails also the loss of qualitative and exploitable data on their customers. Thus, banks should find ways to counterattack this technology.

5.3.3.3 Big data & analytics

The data collected from the customers can be exploited thanks to algorithms developed to process a large quantity of (un)structured data. These data are analysed to better understand the customers' behaviours, find out new trends, predict the future change and thus, help the banks to adapt their strategy. Data analytics can automate some processes and help banks to optimize the experience of their customers. Big data processing is one of the technologies which is significantly impacting the banks' workforce, for the banks which are already exploiting it. Indeed, when algorithms are exploited, less humans will intervene, thus, on the long run the job designs of bank workers will be impacted.

5.3.3.4 Robo-advisor

Robo-advisors are algorithms enabling the wealth managers to automate the portfolio management and define an optimal investment strategy for the clients in order to generate performances in line with the desired risks. With robo-advisors, the investment decisions are automatized, and no human interaction is needed. The most renowned actors in robo-advisor are the solutions offered by Goldman Sachs or Wealthfront. They represent a threat for traditional banks and wealth managers as they give easy access to portfolios managed professionally with low management costs. Wealth managers and customer advisors expertise are therefore threatened by robo-advisors.

5.3.3.5 Blockchain

Blockchain is a record-keeping technology, an "open-source technology which offers an alternative to the traditional intermediary for transfer of the crypto-currency Bitcoin." (Deloitte, 2020). Blockchain is a synonym of decentralization, transparency, efficiency and better security while giving access to some sophisticated investments to customers. This technology represents risk for some intermediaries including banks and the rise of its usage could menace some jobs within banks.

5.3.3.6 Bank Infrastructure

There are different technological solutions for the management of bank operations and the customer interface such as the Infrastructure Open Banking (API), user interfaces, security and risk management but also the automated compliance. They offer better service personalization and better interactivity with the customers but lead to a large disappearing of jobs within banks especially positions in back-office.

In short, banks are currently reflecting on the technologies stated below and on the way they can embed them into their business model. However, they tend to forget the human aspect in the process of digital transformation. This is the reason why the HR department of banks should also address the digitalization in the angle of the employees, their challenges and opportunities.

5.3.4 Changing consumer demands and needs

Swiss bank users are having changing habits with regard to some of the technology they use. There is an increasing number of clients who are willing to use innovative payment solutions, mobile devices or cryptocurrencies. Therefore, banks should be aware of these kinds of changing trends in order to adapt themselves. (Deloitte, 2020). The evolution of the consumer needs can be a source of important innovation. Today, in Switzerland, customers are not specially demanding in terms of banking solutions because they do not really know themselves their needs. However, they are keen to innovative solutions and open to experiment before adopting. Therefore, Swiss banks should satisfy this thirst for discovery and novelty in order to continuously satisfy the customers. This situation puts some pressure on banks because it obliges them to always go beyond their actual capability and find new sources of competitive advantage.

Sometimes, banks are lacking ambition. The majority of their innovations are a response to existing business challenges. However, in order to have a greater response from the customer, banks should predict their needs by analysing data for example, and exploit opportunities to create greater value in a new way. “Knowing consumers’ demand is about fostering trends and their implications, and recognising the urgency and importance of innovation”. (Deloitte, 2018).

Digital consumers are quality seekers, personalization claimants, best deal hunters and human advice requestors. All these demands and needs request a specific expertise and knowledge from the banks and more precisely from their workforce. Indeed, these changing demands will result in higher request for some specific knowledge from the banks’ workforce such as :

- data management and analysis in order to tailor the service offered to customers;
- excellent command of online solutions and platforms in order to set up an engaging, attractive and responsive platform;

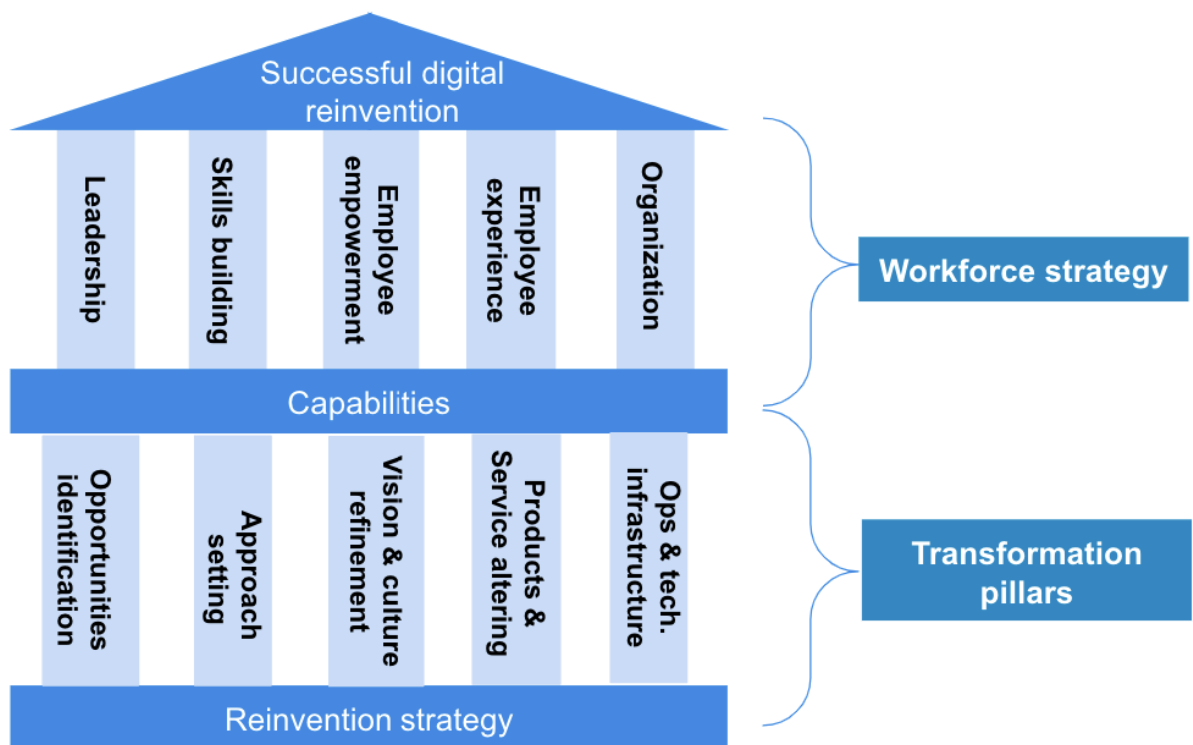
- automation mastering, which is a key element for rapid support and service personalization which allow users to receive customized advices;
- broad financial and non-financial knowledge in order to support the customers in the purchasing process of some non-banking products (insurance, property sale, ...);
- data security, which is considered as the biggest driver of loyalty for banking customers (Accenture, 2019);
- personal counselling represents a great value added for customers who are still requesting human advice.

All these capabilities are already part of the banking expertise but should be particularly enhanced and improved during this era of digitalization of banking services. The HR department is responsible for inventorying the existing knowledge and making sure to bridge the gap if any. However, the technology can also represent a challenge for banks. The following section precisely presents the challenges and opportunities behind the technology for the HR perspective.

5.4 Digital reinvention pillars

Every bank and business model is unique so the digital reinvention of each bank will depend on its own strategy and six other variables as illustrated on the figure below. This figure summarizes the digital reinvention pillars of banks and highlights the components to be taken into account for a successful digital reinvention strategy. Indeed, the main pillars of a digital reinvention are : the strategy, the possible opportunities, the approach, the vision & culture, the new products and services, the operations & technological infrastructure and most of all the capabilities.

Figure 3 – Digital reinvention pillars and enablers



One or many of these components can be altered when a bank chooses to undertake a digital transformation. The figure below illustrates that the capabilities are one of the most important foundations of a successful digital reinvention. Capabilities are digital reinvention enablers of banks and even a slight change in the pillars behind the capabilities (opportunities, approach, vision & culture, products, operations & technology) can have a huge impact on the human capabilities of a bank which is managed by the Human Resources Department. The capabilities can be developed by leveraging five other elements which are the leadership, skills management, empowerment of employee, employee experience and internal organization. Each of these elements can be impacted positively or negatively by the digital reinvention. Thus, this section will discuss the possible threats and opportunities that Human Resources may face while dealing with banks' capabilities during these times of digital reinvention.

5.5 Digital reinvention of banks, threats and opportunities for the Human Resources

In the light of the current situation of the banking industry : the strong regulations, the tense competition, the arrival of smart fintechs, the existence of disruptive technologies

and the evolving society behaviours, the traditional internal organization and strategy of some banks cannot be aligned with the current stakes and challenges anymore. Indeed, the banking industry is facing an innovation deficit.

Thus, banks are encouraged to undertake a digital reinvention which is a strategy aiming at exploiting innovation in order to create a sustainable business model, aligned with the current stakes and challenges and in response to the progress already done by the other actors. Indeed, there are different approaches to innovation that banks can choose from. When the sector is obliged to reinvent itself, the digital reinvention must be undertaken in an intentional way. This will necessitate an alteration of the business model, the customer experience as well as the operations (Yvan Cognasse, Business Technology Strategy, 2020). A digital reinvention will not necessarily lead to radical transformation but rather slightly altering the business model.

This digital reinvention of banks is relative to each company, based on their strategy, digital maturity and capability. “The reinvention may request a deployment of new operating models, change in technology, architecture, processes, culture and even people in order to support and succeed in the digital environment ” (IBM, 2018).

5.5.1 Threats for Human Resources

Handling the digital reinvention of a bank is a complex process starting with a definition of the strategy to be pursued. Depending on the strategy chosen, some internal variables of the human capital may be impacted.

5.5.1.1 Acceptance of a new vision

The first step of the digital reinvention process is the definition of a strategy. Indeed, it is important to figure out the scope of the reinvention, the business approach and the long term goal of the bank. The ambition of change can be a slight alteration (incremental) of the business model or a more important change (adjacent or core). Regarding McKinsey & Company, there are six possibilities of digital growth or reinvention strategy for banks, depending on their resources, competitive position and aspired position for the future. The change of strategy can be one of the following :

- Growing beyond bank's core into relevant ecosystems ;
- Creating a financial supermarket (one stop solution);

- Extending value across the customer journey;
- Monetizing data;
- Becoming a product-or infrastructure-sourcing factory;
- Becoming a digital attacker.

This change of strategy can be successfully implanted only if the long term vision of the company is consequently adjusted. This change of strategy and adjustment of vision cannot always be very well welcomed by every department and employee. As part of the implementation of this vision is the HR department responsibility, it can present a challenge for them to onboard the workforce and make them accept the *new vision of a bank if it is not aligned with their expectations and personal vision*.

5.5.1.2 Human capability gap

“The secret to digital people: people who are collaborative, agile, analytical, innovative, and who have the ability and desire to exploit emerging technologies for better business outcomes.” Tina Nunno, Vice President and Gartner Fellow, Gartner Research.

As seen in Figure 3, capabilities are one of the most important enablers of digital transformation. Indeed, without human capability, no digital transformation can take place. Thus, bridging the gap in human competencies and soft skills is the most important responsibility of the HR department. Indeed, the workforce management strategy in place should be efficient in order to meet the requirements of a continuously changing world. Previously, the leadership and management level of banks are the most impacted by the capability gap but recently, the general workforce has also been confronted with capability gaps.

For instance, UBS has been confronted with this issue and decided to hire Mr. Ralph Hamers as a new CEO because he successfully implemented the digital transformation of his former bank, ING. By hiring Ralph Hamers, UBS puts their trust in a CEO who has a digital agenda and who has a proven expertise in this domain. Every bank should do the same move in order to support their digital transformation. Not only in the leadership level but also in the general workforce level to better monitor the digital reinvention with the adapted skills on hand.

5.5.1.3 Reluctance to change

Resistance to change is the most common threat in cases of transformation. When employees resist hardy changing, it can become a barrier for the banks to undertake its

digital transformation. Reluctance to change can arise in different forms : lost of motivation, fear or lost of trust. It is the HR department's responsibility to prevent this reluctance to happen by anticipating the transformation, being transparent on the ongoing process and convey an image of positive transformational change. Indeed, supporting the workforce can release their anxiety and help them to better embrace the change and accept it faster. It is the first issue to be fixed before undertaking other operations relating to the human and workforce because when wrongly handled, it can definitely be a barrier to further growth and development.

Besides the threats stated above, there are also external factors which may represent a risk for the Human Resources of banks such as the ones below :

5.5.1.4 Talents war

Competencies in Artificial Intelligence, automation, digital or data analysis are the most requested talents at the moment. The banking sector has a bigger challenge because the financial industry is not as attractive as before anymore. Indeed, the IT companies and consulting firms sometimes offer more attractive work environments than banks. Moreover, the banking tech is also losing its attractiveness face to Fintech which is an increasing market. These challenges lead to a difficulty for banks to find financial and digital talents. Thus, HR is struggling in attracting skilled and experienced workers in the market. Even for trustworthy banks in Switzerland, their reputation, money and brand name are not sufficient anymore. Thus, more traditional sourcing techniques are not reliable anymore. Therefore, the HR should find out how to tackle the war for talents between different industries and innovative firms.

5.5.1.5 Generational coworking management

Fifty percent of workers in 2020 are composed of Millennials and Digital natives. While boomers and former generations are still in place, dealing with the mixed generation in terms of management can represent a challenge. Recruiting skilled Generation Y employees, retaining and managing them is a new challenge for banks, as this new generation of workers' expectations are so different from those of the previous generations.

5.5.1.6 Talents retention

Talents are volatile, making it very difficult for employers to attract and retain them. This is because they are in high demand and can therefore afford to put their time and

experience to work for the companies that are best suited to them. Sometimes, companies are lacking the competence in recognizing talents. For instance, some of them do not recognise the value of a team member who is making a significant contribution to their success and who is one of the best people in the business. On the other hand, some organisations make great efforts to attract talents, offer tailor-made packages and work on the company's image. Unfortunately, after recruitment, the management of these talents is trivialized, which encourages them to leave.

The lack or absence of strategy to retain talents does not promote their stability in companies, even though they are real performance levers. To retain them, companies often offer them wage increases or promotions but such practices are not sufficient anymore. Thus, a specific strategy should be applied by banks to tackle this important challenge.

5.5.2 Opportunities for Human Resources

There are opportunities which arouse thanks to the digital. These opportunities are occasions for Human Resources to take advantage from in order to enhance the human capabilities of banks.

5.5.2.1 Inbound recruiting

The Corporate branding is a new successful method leveraged by companies to get themselves noticed by qualified profiles who fit with their corporate culture and have the required skills they need. The social networks are the favorite tools of the recruiters to apply an inbound recruiting strategy. It consists in promoting the excellent brand of the bank as an employer; it is also an opportunity for the banks to gain an advantage over their competitors in the war for talent. It is a way to create a pool of talents, reduce the cost and time required for recruitment and - in the long run - reduce the turnover.

Pictet Bank is one of the banks who leverage its Employer Brand through video testimonials from satisfied employees. They also use social networks to promote the feeling of pride of the employees to be part of such an excellent working environment. As the group is committed to develop careers over the long run, the bank emphasises its necessity to be in tune with inbound recruiting in order to develop a fruitful collaboration with talents.

5.5.2.2 Attractiveness of the banking sector

The banking industry is a dynamic and reliable sector which guarantees one of the highest salary levels in Switzerland. Indeed, the average salary within banks is CHF 9,2k whereas the other sectors amounts rather CHF 6,2k. Moreover, the banking industry is a fast-paced sector where the job positions are diversified and evolving thanks to technology. Generally, the wellbeing of the employees is taken seriously within banks so that they remain loyal and encouraged to perform better. Also, the banking sector encourages its employees to acquire and deploy new skills so that they progress in their career. These preconceived ideas explain the reasons why the banking sector keeps its attractive place as an employer. Thus, banks can take advantage from this attractiveness to attract the best talents.

5.5.2.3 Work mobility

While the use of mobile devices is largely dominant among the general public, bank employees also use their personal mobile device in the course of their work. Indeed, companies are increasingly equipping their employees with intelligent mobile solutions.

Working patterns are therefore moving towards more mobility, but also towards more flexibility. More and more employees work in all circumstances, at any time and with any tool (laptop, smartphone, tablet). This reality represents an opportunity for recruiters to hire candidates who are geographically far from the actual workplace because they can work from other places. Indeed, the technology brings the candidates closer to the banks and offers them a broader choice of applicants.

5.5.2.4 New training tools

There are different training tools which are emerging thanks to technology, such as the learning through mobile, the e-learning, social learning, MOOCs (Massive Open Online Courses), COOCs (Corporate Open Online Courses), etc. The opportunities behind these tools are explained in detail in the last part (section 6.2) of this research paper. The apparition of these new ways of learning represent an opportunity for banks to intensify and broaden the training programmes within companies. These tools also represent an opportunity to employees to acquire new skills without undertaking professional, long and heavy certifications and training programmes.

Thus, both sides, employees and companies are taking advantage of these learning tools to improve the aggregate knowledge and skills of banks.

5.5.2.5 New sourcing possibilities

The technology also represents another opportunity for the recruitment process. Indeed, by exploiting data, specialists can for example spot talents in cities where digital talents pools are still nascent such as some cities in India or Liban. In order to attract these potential linchpin of the future digital transformation, banks can think of having specific recruitment advertising in these countries and offering relocation packages for the candidates spotted in order to expand their pipeline of suitable candidates. (Gartner, 2018)

In short, technology is intervening in favour of banks to enlarge its pool of talents, train its already existing pool of employees, make the recruitment easier and a lot more advantages.

5.6 Direct impact of digitalization on job designs

Some jobs are impacted by the use of different technologies within banks. Three types of activities are threatened by technological developments : administrative management, management of day-to-day operations & collection work, and data tracking.

Firstly, the activity that could be the most importantly threatened relates to administrative and accounting management of banks. The tasks concerning the practical organisation of the collaborator's activities could likely disappear such as :

- filing and archiving of documents, which are now completely dematerialized and automated;
- screening of telephone calls made unnecessary as they have been replaced by chatbots and mobile applications;
- sending follow-up emails is now carried out by machines;
- keeping agendas and organizing appointments would be made directly online or by means of digital assistants;

In the longer term, the scope of endangered administrative tasks should be broadened by the development of Artificial Intelligence tools.

Processing routine transactions is the second type of activity at risk both in terms of monitoring and controlling operations. The execution of operations will be done automatically, in particular for the day-to-day banking and accounting operations. Moreover, the activities in the financial sector will also be particularly impacted,

especially for the transaction orders on the financial markets. On the other hand, the monitoring and control of these operations are being achieved by machines.

The identification and assessment of risks (credit, market or operational) will be achieved through technological tools.

Big Data, coupled with Artificial Intelligence tools and increased computing capacity, will facilitate the verification of the completeness of transactions. The performance of document controls, the management of compliance and risks associated with the products and services offered, the collection of incidents related to the risks of non-compliance, auditing accounting records and payment of invoices, due diligence of transactions prior to the delivery of the processed assets and the control of all transactions in general could thus be done independently and automatically.

Thus, a large part of the tasks now performed by the back-office managers, the controllers and the risk analysts could disappear. Likewise, a large share of the banking specialists, accounting/finance specialists and market operators would also be threatened.

Thirdly, the collection of simple information and its interpretation is the last type of activity that is greatly threatened by the technology. The financial sphere is particularly concerned as the monitoring of benchmarks of markets and macro/micro economic data could be achieved by Artificial Intelligence software, capable of scanning thousands of documents on the Internet or in databases to identify trends and anticipate developments.

The reconciliation of data between the back-office and the front-office, as well as the collection of useful information from analysts, financial experts, chartists or economists are being simplified by automation. The same will apply to the collection of budgetary data and the information needed for studies (accounting data, budget, etc.). Finally, the downstream of the collection is the interpretation of the collected data. This process of interpretation is gradually being automated. Designing dashboards, drafting summaries, commenting on the activity, analysing variances in results in relation to budgets and objectives or preparing forecasts for five years are examples of tasks that Artificial Intelligence would accomplish because they answer perfectly with the characteristics of deep learning. Hence, it would be the market operators' and the controllers' activities that would be particularly impacted.

The transformation of these three types of activities should therefore lead to an evolution of the typology of the bank's core businesses. The following positions should probably no longer be essential for banks :

- Customer service agent;
- Market operator (huge reduction in the workforce, with a significant proportion of tasks being performed by new tools);
- Back-office manager;
- Controller;
- Administrative manager;
- Accounting and financial specialists.

Some of these jobs are expected to persist but their design is strongly reviewed and refocused.

As an example, the customer service agent is no longer dealing with low priority queries, such as online support, customer details verification or responding to basic questions as these tasks are now dealt by automation. Only the high priority queries demanding human intelligence are handled by the employees. Thus, the nature of customer service workers jobs has been reviewed. Today, the requirements for a customer service employee are becoming higher. A Federal Certificate of Competence (CFC) in banking is not sufficient anymore. Indeed, customer service employees are now requested to have high level studies and be able to :

- Recognise customer needs and propose them financing solutions;
- Advise clients on investments;
- Manage and develop a portfolio;
- Ensure the follow-up of the client's evolution;
- Identify and assess financial risks (tax fraud, money laundering, etc.);
- Monitor regulatory, legal, tax and other developments specific to the banking sector.

All these duties have always been part of the account manager's responsibilities but now that almost all the tasks performed by the customer service agent are not considered as valuable for the customer anymore, their job descriptions have been adapted and a lot

more responsibilities are requested from them constraining them to become better qualified.

In short, some employees have been replaced by algorithms and robotic process automation. The role of staff is now focused on engaging with clients, answering their requests which require human intelligence, processing the exceptions rejected by the intelligent tools used, interpreting some data and above all making the digital tools working by understanding their technologies and exploiting their capabilities.

The above mentioned analysis is a broad analysis. Naturally, the impacts of technology on banking business are relative to each company according to its strategy and long-term vision. One of the three categories of jobs mentioned before could be more impacted than another. However, in order to face this ongoing change in banking processes due to technology, a generic roadmap has been defined in the section 6.1 in order to support the banks facing digitalization and which are willing to be Human Resources adaptive in response to the digital transformation.

6. Recommended transformation plan for Human Resources to support the digital reinvention of banks

There are three elements a company can digitize :

- The assets : including infrastructure, connected machines and devices or data platforms.
- The operations : including processes, business models, customer and supply chain interactions.
- The workforce : including the use of digital tools for workers, digitally skilled workers and new digital jobs and roles.

The combination of these three elements compose the capabilities of a bank. All of these capabilities need to be acquired and nurtured in order to become either a foundational capability, be it competitive or distinctive. The most important piece of capability is the workforce as it has the ability to digitize the two other capabilities: assets and operations. On the other hand, the digitization of assets and operations may have an impact on the workforce. This complex mechanism will be discussed in the next part of this research paper.

First of all, even though certain jobs could be automated, some automation technologies will request people to work alongside artificial intelligence, robots and machines. Human beings and machines working together are undoubtedly able to create more value than either one alone. With this in mind, companies should not forget the greater importance of the workforce versus the technology itself. However, to augment technological advancement, companies actually need more of several human skills (PwC, 2018). For this purpose, banks are encouraged to have, on hand, the skills needed to perform its strategy for the next two years.

Secondly, the digital showcase of banks is only the emerging part of the iceberg when talking about digitization. There are expectations to be met in order to reinvent the digital banks. Agility became a must in order to survive in these times when the client expectations are higher and the hallmark of a good banking service is characterised by immediacy, simplicity, self-service and personalisation.

For banks, the challenge is not only technological, it is above all human and cultural. Technology exists and is constantly evolving. However, the skills to accompany change and implementation are scarcer. This is the reason why a digital reinvention of banks should be supported by a workforce strategy on how to deal with the human resources to successfully implement digital reinvention. Handling the human capital of a company is the Human Resources department's responsibility. Thus, the said HR departments have an important role to play in these times of digital reinvention to complete the gap, update or monitor the available skills the company has on hand. The following section precisely aims at formulating some recommendations, through a roadmap, to the HR on the way they can be a solid support to an organization in times of digitalization.

6.1 Roadmap for workforce management in times of digitalization

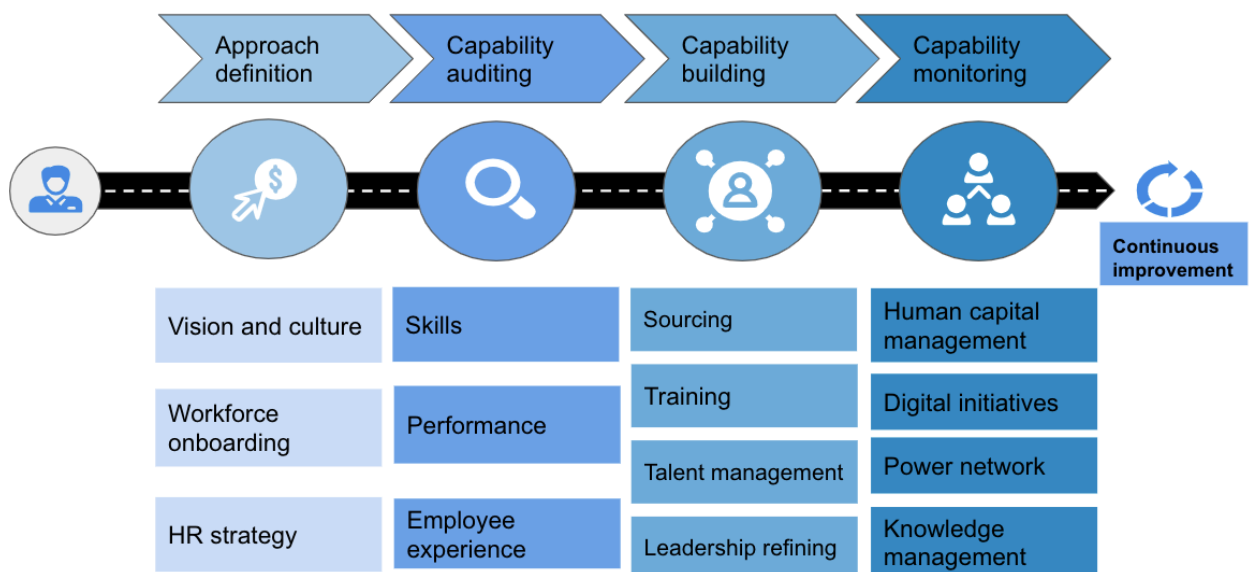
Digitalization or digital reinvention is a corporate goal which needs to be accepted and embraced by the workforce in order to be successful. Today, the young generation does not accept profit-driven businesses anymore. Indeed, they are looking for purpose behind every action. Thus, the digital reinvention for profit purpose is not acceptable anymore. They do have more needs during these times of digitalization, one of them is the search for purpose. Indeed, employees need to understand the vision of the company and its objectives behind the digital transformation. Employees need to understand the direction where the bank is heading to and be embedded in a larger purpose than themselves in order to be engaged in the move. Thus, one key need of employees is communication.

Secondly, employees need to be reassured during this period of transition. They may lose their landmark and question themselves about their future job and responsibilities as well as their knowledge. For this purpose, banks should empower the employees in order to get them involved in the process of transformation and to give value to their work to get them committed and onboard.

Each company and employee has different profiles and different needs. Therefore, the journey of digitalization differs depending on the employee engagement, the leadership approach and management strategy. Therefore, hereafter is a recommended roadmap to be followed by the HR in order to manage the workforce in times of digitalization.

This roadmap is not exhaustive but can help to understand the mechanism of the digital reinvention, its stakes and challenges. This roadmap is composed of four stages. The foundation of this roadmap is the digital ambition of the bank discussed in the first part of this document. Once the reinvention strategy (=digital ambition) is set, each department of the bank acts at its level in order to meet the desired goal. The board should not forget to also consider the big picture of the staff and take actions in order to build a digital culture and create a favourable environment for skills to flourish and develop for the company's benefit.

Figure 4 - Roadmap to support the workforce in times of digitalization



6.1.1 Approach definition

The step of approach definition consists in determining the way digital reinvention can be executed at the level of the workforce. The digital reinvention generally implies some changes in some key foundation of the company such as the leadership, vision and culture. This section will aim at reflecting and setting up the building blocks of the company's workforce transformation.

6.1.1.1 Formulate a vision

Once the corporate digital strategy is defined, banks should implement corporate policies that involve and motivate every stakeholder of the company to embrace digital innovation. First of all, the vision and culture of the company should be adapted to the digital ambition of the firm.

There are different elements which can be integrated into the long term vision of a bank : its experience, its goal, its focus, its priority and its commitment are the foundation of a good vision. A vision can show a company's image of a proactivity, socially engaged bank, relational-focused bank, a mobile or data-driven bank.

Hereafter is an example of a vision statement which is complete and motivational. It is the vision of the Heritage Bank.

"To be a financially viable, independent community bank that is committed to improving the quality of life of the communities we serve.

To earn the loyalty of employees, customers and the community by operating with integrity and fairness at all times.

To demonstrate behavior that totally focuses on the customer and recognize they are the reason we are here.

To have employees who are empowered to build long-term relationships with our customers.

To provide our shareholders long-term growth and an attractive return on their investment in the bank.

To satisfy the customer's needs by offering a myriad of products that are driven by a sales and service philosophy."(Heritagebank.com, 2020)

Such a vision is a great motivation giver and direction indicator for employees. Digital ambition is not necessarily part of the general and long-term vision. However, employees should understand at which level of the vision the digital is taken into consideration. For this purpose, an explanation of every aspect of the vision is necessary to give more details on the digital purpose behind the vision.

For example, “to be a financially viable, independent community bank that is committed to improving the quality of life of the communities we serve” means that the bank is willing to offer a better experience to its customers by serving them through different channels (online and offline) and by offering them digital tools allowing them to have a more friendly experience with their bank.

“To satisfy the customer’s needs by offering a myriad of products that are driven by a sales and service philosophy” can be understood by the fact that the banks are making data-driven decisions based on the preferences of their employees and their habits of consumption in order to grant the best offer of services.

In short, the formulation of the long-term vision is key before entering into the more concrete aspect of digital transformation.

6.1.1.2 Promote a digital culture

The second step after the definition of the vision is the living of the culture. According to 48 banks surveyed by BearingPoint Institute in 2015, the hallmark of a success project is, for 95% of the banks, the corporate culture before the good implementation planning and the implementation of a digital management. Moreover, innovation needs to be formally embedded as a management discipline and the corporate culture needs to be opened up towards divergent thinking. (Deloitte, 2018)

Indeed, not having a supportive culture can be a barrier to digital transformation and can be correlated to negative economic performance (McKinsey & Companies, 2020).

Thus, a digital culture needs to be set in order to empower and inspire every level of the management and organization to create a totally ambitious digital mindset compared to the previous one. Communicating about the culture is more than needed so that staff can assimilate the future ambition the company wants to achieve and the behaviour that the company is requesting from its employees. In this respect, the latter can take part in the transformation, put some efforts and take initiatives in alignment with the new culture.

In order to make the culture a reality, employees should be encouraged to have a digital mindset. Having a digital mindset consists in understanding the power of technology to facilitate internal processes and adapting the way of proceeding to accelerate every form of interaction and action.

6.1.1.3 Workforce onboarding

Workforces need to be aware of the changes happening in their environment and companies. In times of digital change, they should be informed and ideally participate in the journey in order to be fully onboarded on the common project.

First of all, the management needs to inform the employees about what is happening next and to underline that they need to be aware of the switch in vision and strategy of the company. This step is about communicating with the staff the changes the bank has to go through in the near and long-term future. The communication is not enough, employees need to have time to think and understand this new path the business is about to take. Indeed, it is key for the workforce to have a good understanding of their environment and of their future in the company. The psychological and emotional aspects of the workforce should not be taken lightly as it can limit their potential. Using a human-centric change management process can lead to success because people need to feel safe and valued. Most of all, having the employees participating in the digital journey is also key because it gives them a sense of purpose and belonging to the company and its strategy.

6.1.1.4 Digital committee

One key element in the approach of digital transformation is the definition of the team who will conduct the change and the reinvention. There are different possibilities of organization depending on the structure, size and strategy of the company. However, having a digital committee (DC) team is always a good initiative. This team will be the source of the innovative ideas and make them happen.

Ideally, the digital committee should be a transversal team, meaning that the members are specialists from different departments (compliance, legal, HR, operations, ...). The digital committee should work together with the business-unit leaders as well as the IT team to create a successful strategy and a potential disruptive strategy inspired from the competitors.

6.1.1.5 Chief Information Officer (CIO)

The CIO is the spotlight to lead digital transformation (Gartner, 2018). S/he needs to understand the digital ambition of the bank and its long term strategy in order to conduct the transformation.

To ensure the expected quality of service and product, the Chief Information Officer (CIO) must identify the right technological and business partners needed for the digital transformation. Moreover, this job position needs a flexible and agile mindset in order to be able to adapt to the changing world. It is the CIO's responsibility to "increase their ability to recognize, prioritize and respond to digital disruption" (Gartner, 2018).

Hiring a CIO (or not) should be part of a bank's approach definition. If the bank decides to hire one, it should define the profile of CIO that suits the most to its strategy and culture. The most common CIO profiles are :

- Partner - an officer who acts in a more transactional way and focuses on managing services, core IT and value for money, while also preparing for digital (Gartner, 2018)
- Digital builder - an officer who "creates a culture that unleashes a rich set of digital product skills across IT" (Gartner, 2018). Builder CIOs design and work with other services to enable the new products and services to succeed.
- Digital pioneers are willing to disrupt the industry and will tend to act as an entrepreneur to build new capabilities, new business models and revenue streams (Gartner, 2018).

The type of CIO needed depends on the disruptiveness of a strategy and the long term purpose. Banks need a mix of the three different types of CIO in order to succeed in a very competitive environment.

6.1.2 Capability auditing

Human capability auditing is about conducting a complete overview of the skills of the bank workforce in order to determine their level of expertise in some key areas which are important for the digital transformation of the bank. The skills can be coding, project management, data analysis, AI development, digital exploitation or else.

6.1.2.1 Skills inventory

The goal behind capability auditing is to define whether the company does have the required skills and knowledge to achieve its long-term strategy and meet the future demands. To do so, the Human Resources department of banks should start by understanding the new strategy of the company and mapping the capabilities needed to achieve the long term vision and compare them with the current capabilities of the bank. The goal of an audit is to assess the gap in skills between the current and future aspirations and find solutions to bridge in case of gaps. In other words, the HR department needs to design a workforce that aligns with the organization's strategic objectives. This step is key and part of the long-term strategy of the bank.

Moreover, employees need to be able to identify what they need to put in place in order to evolve alongside technology and other specific tools. The management has to accompany them towards this objective of progress. Tools based on a variety of techniques (self-declaration of skills, knowledge tests, 360 assessment, etc.) can help to accompany the employees in the realization of mini balance sheets of skills. This tool will allow the HR to establish an individualized support plan (training, coaching, career path, etc.) to accompany the employees for the future.

This is the reason why the audit approach is also called Strategic workforce management because while auditing the capabilities of a company, the HR can also bear in mind the emerging technologies and the future trends in which the banks should acquire new skills in order to have a strategic plan of skills within a team, department and the company in general.

Figure 5 - Skills audit instrument

	Skill group 1 : Digital methodology			Skill group 2 : ...
Team member	<i>Project management</i>	<i>Advanced coding</i>	<i>Digital communication</i>	
<i>Jean J.</i>	E	B	N	
<i>Paul K.</i>	N	E	S	
<i>Marc L.</i>	N	S	B	

N	B	S	E
<i>None</i>	<i>Basic</i>	<i>Skilled</i>	<i>Expert</i>

6.1.2.2 Performance assessment

McKinsey & Company affirms that the degree of digitization can be measured in terms of assets, usage and the extent to which jobs and work are enabled by it (McKinsey & Company, 2017). Banks and financial services are part of the sectors with the highest digitization. Thus, the degree of digitization of a company can be representative of its level of performance in its sector. In the banking industry, the human performance can be assessed by the overall innovativity of the company, the knowledge update, the degree of digitization within the bank, etc.

6.1.2.3 Current employee experience analysis

Besides the skills and performance, the capabilities of a bank can also be assessed by the quality of its employee experience. Indeed, employee experience has become unavoidable.

If banks want to attract and retain talent, regain the commitment of their employees and maintain their reputation, they need to offer a new work experience. In a digital, uncertain and constantly changing world, it is essential to provide employees with a unique, fluid and exciting experience throughout their time with the organisation, so that they can give their best. The employee experience thus becomes as strategic for the business as the customer experience for which companies have already demonstrated their know-how.

There are simple employee experience metrics such as their satisfaction and motivation, their loyalty, their effort and dedication, their application of the culture, their feeling of

belonging and growth and even more. Indeed, “more positive employee experiences are linked to better performance, extra effort at work and lower turnover intentions” (IBM, 2017)

6.1.3 Capability building

Capability building is about bridging the gap according to the result of the capability audit. The main purpose of this step is to prepare a digital ready workforce. At this end, there are different initiatives which can be undertaken.

6.1.3.1 Sourcing

First of all, depending on the importance of the gap found during the audit step, banks should either acquire new talents to complete the current team or develop the existing talents. The action of completing, building and arranging the workforce composition is called the maintenance of the talent’s lifecycle and it is the HR’s responsibility.

Sourcing talent can be an excellent option when the skills needed do not yet exist internally. Behind every external employee can hide a transformation enabler or an innovation leader, especially when the talents are thoroughly chosen. Moreover, after the planification of the skills and competencies needed, if the company needs to acquire new talents, it should put in place a recruitment strategy. This will help the bank to attract talents and offer a compelling value proposition to the future employees so that the best-fit talents should be spotted. Most of all, the employee experience should also be enhanced in order to have better attraction advantages as compared to competitors.

6.1.3.2 Training

In order to maintain the contribution of the digital transition of the company, it is imperative to update employees’ skills and knowledge. Given the speed of digital evolution, the obsolescence of employees’ skills is a threat to the attractiveness and competitiveness of the company. To prevent this risk, the continuous training of employees is necessary. (Necessary resources for digital transformation, admin.ch, 2020).

Moreover, “Educational systems have not kept pace with the changing nature of work, resulting in many employers saying they cannot find enough workers with the skills they need.” (McKinsey & Company, 2017). Indeed, the most needed skills are today scarce so companies are constrained to build and equip their talents by themselves. It is the HR’s responsibility to drive training and prevent gaps in skills they may encounter in a

near future. Thus, they would be more active in the education and training of the employees and inform them about the new needs for a better-fit.

The choice to build up the skills of employees should be a real strategic choice for banks. However, there is a danger in setting up training schemes whereas the loyalty of employees is so low. HR departments are expecting a return on investment when training staff. In order to prevent the departure of trained workers, clauses in training contracts should be set up in order to require the employees who benefited from training to serve the company for a minimum duration, in order to make the investment profitable.

6.1.3.3 Talent management

“Talent management is the process of identifying, recruiting, developing, retaining and deploying talented people” (Armstrong’s Handbook of Strategic human Resource Management, 2012). The talented people should be identified outside and inside the company itself. Generally, they are with high potential and contribute to the organization differently thanks to their commitment and special capabilities.

A good talent management strategy can make a difference in an era of talent war in the job market. Indeed, banks should constitute a pool of talents who will be able to provide the company with the right skills at the right moment. To do so, banks can introduce some processes to identify the talented people and manage their development within the company. For instance, they can design jobs in which they can grow their skills while remaining autonomous or give them room to develop in their career by providing them with challenging job opportunities. Indeed, it is more effective and less costly to manage the already existing talents within the company rather than to attract external talented staff.

There are three actions that companies can implement in order to retain talented employees. First of all, it should be proved that talented workers embrace the culture, mission and vision of the company to make sure that they are a good fit for the bank. Secondly, companies should work on their flexibility and focus on productivity and achievements of workers instead of their working hours. Lastly, talented people should be able to pursue their career ambitions and be offered the promotions they deserve in order to meet their expectations and assure their happiness and feeling of fulfilment at work. If the former point is not met, there is a risk that the talented worker will find other companies with greater opportunities (Accenture, 2020).

6.1.3.4 Digital leadership

The role of leadership in times of digitization is to equip the employees with the necessary capabilities to face change and to lead employees in order to achieve digital strategy and cultural goals. Thus, specific management programs should be set up for people having leadership positions enabling them to effectively accompany the workforce in the shift to digital.

“Digital leaders play a critical role in paving the way for the digital transformation” (Deloitte, 2018). They should be equipped enough as they hold the responsibility of digital designer and leader of the organization. They should also be able to define the change management that needs to be set in their own team and department in order to lead the company through the journey of digitalization.

Deloitte (The changing role of people management in the digital age, 2018) has identified the key leadership skills that digital leaders should have to implement a successful digital transformation. A successful digital leader should :

- have a comprehensive understanding of the digital market;
- have a visionary mindset to develop solutions;
- be able to promote digital initiatives;
- be able to manage effectively digital and cross-functional teams;
- be able to innovate products, improve life-cycle and user experience;
- be sensitive to talented employees' development needs.

In addition to the skills stated below, digital leaders should be an adaptable, collaborative, communicative, feedback- giver and driven person. Thus, the implementation of a digital culture should be a support to help leaders to have a future-oriented perspective and empower them to become the digital leaders the banks want them to be.

6.1.3.5 Organization

Having the right talents at hand and a digital-driven leadership are not enough for banks to effectively set up a digital transformation. “Innovation should be formally embedded into the organisation; innovation needs to be considered as management discipline and

opportunities need to be systematically screened and regularly discussed across the leadership” (Deloitte, 2018). Indeed, since the digital dimension can have an impact on the different departments of the company, the operations and practices within the company should be adapted to the changing digital environment in order to support the skill capability building within the company.

For instance, the needs of the workforce are changing, there is also an increasing need in digital talents and most of all, the staff jobs are affected by the deployment of new technology. These changing parameters should be taken by banks as an encouragement to invest in people to succeed in the digital age (BCG, 2020).

Moreover, if needed, banks should adopt a different governance system which is more adapted to their business objectives. There are different ways to organize the company from within to continue to build capabilities depending on the goal of the team. For example, some banks could encourage employees to experiment new things in order to learn from their failures. A culture and organization which encourages experimentation therefore needs to be set. For other banks, collaboration should be enhanced to encourage the openness and eradicate selflessness. Otherwise, banks can also encourage the organization to build an innovative atmosphere to support innovation and there are further examples.

The agile organization is the most adapted and efficient for banks which are willing to adapt to some changing customer requirements for example. It is the case of ING Bank which has specific objectives relating to their rapid adaptability to customer requirements, increase of efficiency by removing silos and improvement of staff engagement. By implementing an agile organization, different teams are getting to work together and “are empowered end-to-end to develop, test, deploy, maintain, and adapt customer processes and offerings according to their specific purposes” (BCG, 2015).

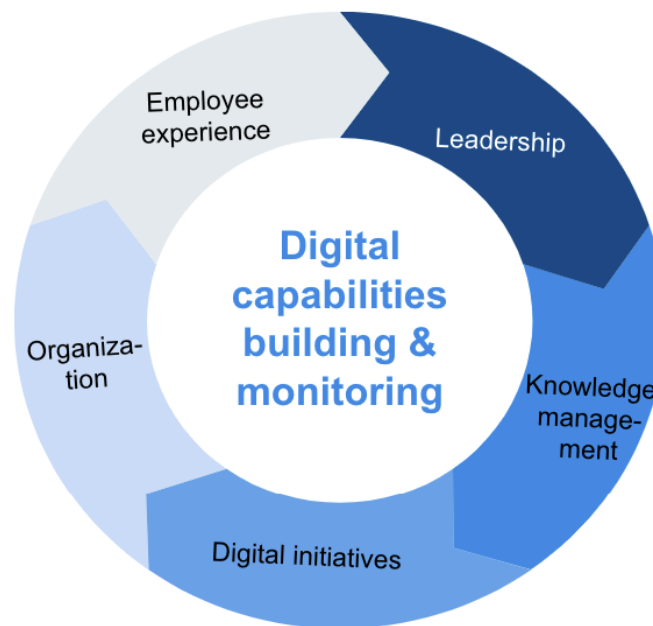
Furthermore, this change in organization helped the company to gain in efficiency, meet its digital ambitions and attract new talents. However, it is crucial that the agile transformation should be accompanied by an effectively trained leadership team.

6.1.4 Capability monitoring

Once the banks have the needed capabilities on hand, they should maintain them in order to always be up-to-date and even be one step ahead of the market and the demands. For this end, banks should monitor their existing capabilities by having a Human Capital Management strategy in line with the trends and the markets. Moreover, the setting up of digital initiatives within the company can also foster a digital and

innovative culture. As discussed in the previous section, the improvement of the Employee Experience is also a way to monitor the capabilities within the company.

Figure 6 : Digital capabilities building & monitoring components



6.1.4.1 Human capital management strategy

“Human capital management is a discipline that enables organizations to identify how their people contribute to and drive business performance” (Armstrong’s Handbook of Strategic human Resource Management, 2012). In times of digitalization, this discipline has become strategic because it can provide HR with data aiming at informing on the effectiveness of people management in the organization.

The human capital management (HCM) of a company is the link between its HR department and the company’s business strategy. The (HCM) consists in measuring the results of HR actions, planning and taking measures for improvement. The data relating to digital skills that HCM tries to determine depends on the HCM goals. For example, they can be the availability of employable digital skills, the learning and development of a team, the digital leadership development, the growth in productivity, the level of innovativity, etc. Based on these results, the HR department can develop a programme which can improve the effectiveness of HR digital involvements.

The work of the human capital management team through measurements, surveys, observations, interviews etc can allow a company to take measures regarding the improvement of its digital capabilities. The outcome of these research may be variable :

- improvement of retention efforts in a specific department;
- refinement of payment-by-result schemes;
- set up of personal development plans;
- taking measures on mandatory training hours per employee;
- improvement of talent management programmes;
- anticipate HR related problems;
- drive projects aiming at increasing digital excellence;
- and a lot more.

In other words, the Human Capital Management of a banking company is an ongoing process and part of a long-term strategy aiming at supporting the digitalization of a company.

6.1.4.2 Digital initiatives

There are different digital initiatives that a company should put in place in order to nurture the workforce's knowledge, raise the curiosity of the laggards employees and encourage them to self-educate to face the digital change. Digital initiatives are special activities which are adapted to the culture, strategy and goal of the company. The broader possibilities of digital initiatives will be discussed in the recommendation section of this report. However, generally speaking, what banks can put in place are :

- events to diffuse the digital transformation and spirit of the company;
- activities that foster collaboration and innovativity;
- challenges aiming at developing digital solutions ;
- personal follow-up of people on digital transformation journey;
- encouragement to have free time for learning.

6.1.4.3 Knowledge management

Knowledge management is all about a general improvement and administration of digital skills within organisations. The skills are very specific to a job and an outcome of training or expertise although knowledge is the aggregate know-how of a company and its general level of digital literacy. This set of knowledge should be managed thoughtfully in order to represent a strategic asset for the company.

In order to improve the general knowledge of the workforce, banks are not always obliged to organize formal training or give formal incentives to employees to improve their digital knowledge. There are informal initiatives that can be undertaken such as webinars, speaker series, access to informative resources and materials, etc. Moreover, employees have different learning styles. Thus, it is crucial to diversify the approaches so that everyone can be onboard.

For instance, it has been proven that even though companies offer free time to employees to learn in the office, they do prefer to use this time for different purposes and would prefer to learn new skills in their free and private time. For this reason, the development of other tools and ways of learning are important. Some companies offer e-learning platforms to employees or set up mobile training for better convenience and accessibility in order to foster the learning even outside working hours.

The most important element in the knowledge development is the practice through hands-on experiences on the workplace because the 70-20-10 learning model says that 10 percent of knowledge comes from formal training, the 20 percent comes from informal learning as the types stated before and the most important part (70 percent) of the knowledge comes from hands-on experience on the workplace (Hayes Jocelyn, 2019). Thus, banks should allocate time to employees to experiment with what they learnt in the workplace enabling them to assimilate and really have them practice and discover their new capabilities.

6.1.4.4 Employee experience (EX)

The employee experience in times of transformation and talents war should not be taken lightly. Indeed, retention and performance are key to survive in the digital transformation era. In order to improve these elements, banks should not underestimate the quality of the employee experience within the company.

A research made by IBM in 2017 “reveals that financial services sector employees who experience a sense of belonging, purpose, achievement, happiness and vigor perform at higher levels and are more likely to contribute “above and beyond” expectations. They are also less likely to quit.”. Thus, the improvement of the employee experience consists in the application of all the recommendations enumerated throughout this document. Employee experience improvement is about having a committed leadership team, a positive working environment, a great coworker relationships, a meaningful work and a recognition of performance.

All the parameters stated above should be taken into consideration on an ongoing basis in order to have a human and unbeatable employee experience.

6.1.5 Continuous improvement

From the beginning of the digitalization process, some metrics should have been defined in order to guide the decisions, measure the progress and define the targets regarding HR actions. Some companies can decide to have the digitalization and innovation process to be led by a specific committee or a Center of Excellence before embedding them into the whole company. If it is the case, a specific HR Center of Excellence should be part of the committee in order to monitor the efficiency of the approach chosen and the actions taken to build the internal digital capabilities.

Indeed, the digitalization should be accompanied by an ongoing assessment of digital skills. This assessment can be quantitative (through figures and metrics) or qualitative (through survey, interview, observation, report, ...). The goal is to measure the effectiveness of all the initiatives set in the “Capability building” step. Thus, in order to continuously improve the HR processes regarding the workforce support during the time of digitalization, there are different variables which can be measured such as the non-exhaustive list stated below :

Figure 7 - HR management metrics

<i>Sourcing</i>	<i>Training</i>	<i>Talents management</i>	<i>General metrics</i>
<ul style="list-style-type: none"> → Time to hire; → Cost to hire; → Source of hire; → Selection ratio; → Vacancy rate; → Candidate job satisfaction 	<ul style="list-style-type: none"> → Training expenses per employee; → Number of training hours per employee; → Achieved trainings; → Return on investment from training programmes; → Promotion rate; → Skill level VS requirements 	<ul style="list-style-type: none"> → Pool of talents size; → Talents achievements; → Turnover rate of talents; → Talents retention rate; → Average length of promotion 	<ul style="list-style-type: none"> → Cost of HR per employee; → Employee engagement; → Turnover; → Employee satisfaction; → Retention rate

All these metrics are important to take actions quickly and adjust them through the journey. Moreover, measurements are the proof of the legitimacy of the efforts in the eyes of the employees and the management. It is also a way to determine the effective actions and to reiterate them. Constantly questioning the practices is good for the improvement of internal skills. Indeed, the employer brand is not static, like the market and the company, it evolves over time. Taking time to periodically do some introspection can avoid creating a gap between the promise, the expected result and the reality on the ground.

Digital implies regularly questioning because even though a bank is well known, the speed with which tools evolve means that internal capabilities management strategies must be constantly adapted.

6.2 General recommendations for Human Capital Management in banking sector

In this period of digital transformation, the Human Resources of banks should keep in mind that employees are the core of the change. Indeed, it is crucial to accompany them in this strategic change, consider their feedback, make them understand the strategic shifts, train them to design, upgrade and implement technology solutions. Nowadays, the employee experience should be considered as a top priority to retain the maximum of employees. Moreover, the effective coordination of the digital transformation is key as it enables the company to provide the best workforce experience even in uncertain periods.

In short, there are different strategies and practices that Human Resources Managers should think of in order to successfully support the bank and its workforce in its digital transformation. This section is aiming at synthesizing the main recommendations that come out of this research, the effective practices used by some banking companies or even firms from other sectors. Hereafter are a few recommendations that are formulated to the attention of the Human Resources department or C-level executives which should help them to deal with the challenging situation of human capital management in times of digitization.

6.2.1 Board management cultural shift

Management and HR must be made aware of its key role in creating a context of trust and freedom. They must be transparent and honest, announce and respect their commitments, be clear about their objectives, remain consistent between words and deeds, develop the autonomy of the employees, accept to receive and give feedback. Indeed, each level of the hierarchy will have to promote and foster a favourable culture and the digital mindset explained earlier in this report.

However, the C-level executives are used to being formatted for business optimization. They are sometimes unable to reintegrate a culture of caring. This is one of the reasons why there is a fairly massive rejection of their actions from employees. Today, there is a great danger that the best people willing to work in a favourable culture and develop these behaviours leave because of the management incompatibility. Therefore, the HR should start to foster the cultural change of the management level before the workforce themselves because the cultural shift should start from the board and the executives.

Sometimes, the complexity and misunderstanding of some technology principles may lead to a mistrust or indifference and even a loss of interest from the board even though they are having considerable impact on the business development. Thus, there should be a raise of awareness and a digital literacy improvement of the board and executive managers within banks in order to alleviate fears and mistrust on technology due to lack of knowledge.

Concretely, participative workshops with IT, digital and marketing managers can facilitate exchanges and dismantle preconceived notions. In addition, the realization of teaching aids (graphics, videos, explanatory notes, profile sheets, etc.) should allow the board to better visualize the expected evolutions of the technology usage.

Sometimes, when the company feels that the current board members are not in touch with reality anymore, the solution of replacing them can arise. It is the case of UBS which decided to appoint a new CEO with an impressive digital background from September 2020 in order to undertake fundamental changes within the company. The new CEO, Ralph Hammer, made a brilliant career in the ING Group where he conducted the digital transformation.

6.2.2 Reverse mentoring

Furthermore, to tackle the issue of lack of digital knowledge of the board and other executive managers, some companies such as AXA Insurance have implemented the Reverse mentoring. It consists of training where seniors and decision-makers are mentored by juniors, often on digital subjects such as technology or social networks. In exchange, senior employees share their knowledge of the company. This training model, beyond the knowledge acquired, helps to strengthen the links between the generations in the company.

6.2.3 Build a “power network” and a digital ecosystem

When facing digitalization, banks should recognize that IT and digital is not their core activity and expertise even though they are trying to grow in these areas. For this reason, banks should build relationships with organizations which will help them to achieve their digital and long-term goals. The purpose behind networking is to get the support from strategic stakeholders in the realization of future projects and challenges. More than ever, the foundations of the banking ecosystem need to be rethought in a collaborative way integrating the notions of innovation and digital skills exploitation. The cooperation between banks, fintech companies and some digital players are today a necessity to keep the banking system in the race at the international level, to resist the aggressive competition from the American digital giants and to be able to recover after the unprecedented Covid-19 crisis.

For instance, there is currently a hyper competition for digital roles. To face this challenge, banks should partner with some flagship schools specialised in IT in order to set up a solid foundation for their future talents. The partnership with universities represents a promising talent sourcing which is cost-effective and quality-guaranteed.

Indeed, graduates can be a new pipeline of talents. Therefore, if banks are looking for specific technical capabilities, they are encouraged to maintain a good relationship with

renowned schools in order to profit from their emerging and mature talents. On the other side, the partnership with academic partners is a way for banks to improve their visibility among the students and eventually attract them after their graduation. This way of proceeding is very common in the consulting industry. The University of Lausanne (Unil) is for example a privileged partner of Pwc and KPMG; the Pictet Bank has recently made this choice to entrust the Unil for part of their talents sourcing.

There are also banks who outsource their HR management. Generally, these companies do not have specialists internally to reflect on HR strategies such as talent attraction, retention programmes or culture refining. Therefore, in order to profit from the expertise of specialists, these banks generally solicit one of the big four consulting groups such as KPMG, Pwc, Deloitte or E&Y. For example, J. Safra Sarasin Group, Société Générale SA or EFG Bank have chosen Deloitte to support them in their digital reinvention process. These external consulting firms can also be part of the network of the banks for their successful development.

As discussed throughout this report, the learning and development of the employees represent a substantial advantage. Banks should be able to offer the best quality of training to their workforce. In the French speaking part of Switzerland, the Institute for Studies in Finance & Banking (ISFB) is the most renowned training center. Some prestigious banking experts of Pictet Bank, Edmond de Rothschild or LGT Bank generally solicit this institute to train their wealth managers or request their service of skills assessment to evaluate the capabilities of their executives. Moreover, the ISFB can set up some on-demand training classes in a broad range of fields for the specific needs of every company or team such as in Private banking, Digital finance, Data analysis, Neo Banking and a lot more.

The preservation and nurture of the workforce knowledge should be also part of the HR responsibility. For instance, the participation in events which gather banking professionals is part of the knowledge preservation strategy. To this end, the majority of Swiss banks are members of the Swiss Bankers Association which is an institution organizing special events enabling the exchange of information and knowledge between companies and peers. Moreover, the Swiss Bankers Association offers valuable contents for banking and finance professionals in order to educate and fine-tune the knowledge of the banking professionals.

Finding specialist partners in the banks' non-core activity - such as wealth management, fintech or some specific technology - is also a good strategic approach to remain innovative in the market. For example, Lombard Odier decided in April 2020 to invest in

a Swiss Fintech company specialized in digital asset infrastructure (Blockchain). Taurus, the Lombard Odier's new partner, will enable the bank to remain at the forefront of technological innovation and offer solutions that meet the needs of its increasingly demanding clients in terms of digital assets.

The non-exhaustive options listed below are the possible partnership banks could create to enrich and empower its network. Once the collaboration is effective, the partner can be considered as part of the banking company's ecosystem. The latter is an environment that banks should reinforce and maintain in order to face the digital challenge. Here is a table which summarizes the "power networks" stated above :

HR goal	Stakeholder to network with
Talent identification	Academic partners, Placement agency specialists in banking industry e.g. : Ecole Polytechnique Fédérale de Lausanne, Haute Ecole d'Ingénierie et de Gestion, Unil, ...
HR strategies (attraction, retention programmes, culture reshaping, ..).	Consulting groups e.g. : KPMG, Deloitte, E&Y, Pwc, ...
Workforce training & development	Training centers, e-learning platforms or career development coach e.g. : CYP, ISFB, Coursera, ...
Knowledge preservation	Digital initiatives organizer e.g. : Swiss Bankers Association, ...
Technology exploitation	Fintech companies e.g. : Lombard Odier & Taurus

6.2.4 Innovation hub

Beyond the HR goals, banks can also create a bigger network for the realization of more important projects. To do so, they can create a multidisciplinary network of banks, economists, data scientists, marketing specialists etc. in order to achieve a common goal. Thus, the creation of an innovation hub for different banks should be a way to

gather some specific knowledge and have a high-impact technological and economic innovation.

An innovation hub is a physical network of companies / multi-actor partnerships choosing to leverage their expertise, work through and focus on a defined common goal which can be relating to innovation, fintech or the banking industry in general. The companies deciding to form an innovation hub reduce the uncertainty of their projects and share the costs relating to the research by combining their expertise, sharing equipment, educating together and combining markets (TNO Innovation for life, 2019).

As an example, there is an existing innovation hub for central banks aiming at “fostering the collaboration of international actors on innovative financial technology within the central banking community” (Bis.org, 2020). In 2020, the Innovation Hub of the Bank of International Settlements (BIS) is, for instance, planning to develop an open source software (for a large public) relating to financial technology aiming at improving the global financial system (Hyun Song Shin, 2019). Such a wide-ranging project is only achievable through large partnership and strong networking. It is the reason why banks should cooperate around an innovation hub when they have more than ambitious projects.

6.2.5 Build a promising pool of talents

The constitution of an effective pool of talents has also been discussed throughout this research. More than forty percent of banks find it difficult to find IT talents. (Forrester, 2019). Thus, building talents is key in the digital transformation era in order to create digital products, offer better customer experiences and have competitive operational efficiency. Therefore, the HR should be well equipped for this purpose.

Moreover, it has been noticed that there is a change of paradigm in human resources. Today, knowledge and skills are not sufficient anymore to be competitive in the digital banking environment. Banks are looking for “Digital Talents”, those who do have the knowledge, the soft and hard skills but above all the digital spirit and the needed interpersonal skills to work in the midst of digital transformation.

On the other hand, banks also have the opportunity to pull smart and ambitious employees to pursue IT careers and empower them to learn and be certified for specific competencies. There is for example a promising opportunity to exploit the dynamism and enthusiasm of young apprentices to pursue their career in IT after their graduation as

bank workers. Indeed, it can be a solution to spot non-IT talents and invest into them, enabling them to become IT and financial specialists and be trained in data analytics, business intelligence or the other skills needed by the company. The advantage of this practise is to combine business knowledge (as a bank apprentice) with IT skills. Such a set of knowledge is a valuable asset for the company. For this purpose, banks should assess the capabilities of each apprentice, evaluate their resources and offer them the opportunity to complete a specific certification among the most needed of the company.

By doing so, banks build talents internally and prepare the brightest apprentices to become the future talent of the bank. The emerging job positions banks can potentially need in the near future are the following :

- Data scientists and data/business analysts - McKinsey & Company affirms that the role of big data in the economy and business will create a significant need for statisticians and data analysts. The estimation of shortfall in data scientists is up to 250k in the US alone in a decade. (McKinsey & Company, 2017)
- Finance specialists and regulation experts who are able to be up to date with the changing regulations.
- Technical accountants able to navigate, understand and apply new regulations and business processes and face business challenges.
- High value added counsellor able to leverage AI while providing high-quality counselling to customers.
- Enterprise architects who are able to fully understand the overall strategy of the bank, its business model as well as the emerging technologies to always be uptodate and to enable the company to be proactive.

In other words, the strategic Human Resources planning of banks should include the building of such talents in order to avoid facing shortage of skills and, above all, to have on hand the best talents they can find on the market.

6.2.6 Foster lifelong learning

The role of humans is being reduced thanks to the adoption of faster and smarter machines which accelerate the processes and the analysis of data. Even though

intelligent machines will largely replace human activities such as trading strategy development (WEF, 2015), the workforce still needs to develop some skills enabling them to work with and leverage the technology solutions. Therefore, banks are, more than ever, encouraged to prioritize the learning, offer a favourable environment for learning to employees and encourage the development of their interpersonal skills.

Hereafter is a non-exhaustive list of the in-demand skills in digitalization era :

Figure 8 - In-demand skills in digitalization era

<i>Personal skills</i>	<i>Finance & entrepreneurship knowhow</i>	<i>Networking & organizational skills</i>	<i>Digital methodology</i>
<ul style="list-style-type: none"> → <i>self-management</i> → <i>resilience</i> → <i>adaptability</i> → <i>problem-solving skills</i> → <i>analytical mind</i> → <i>agility & flexibility</i> → <i>collaborative skills</i> 	<ul style="list-style-type: none"> → <i>ability to make data-driven decision</i> → <i>customer-oriented</i> → <i>result-oriented</i> → <i>solution selling</i> → <i>cost-aware</i> → <i>technical accounting</i> → <i>finance regulations knowledge</i> 	<ul style="list-style-type: none"> → <i>interdisciplinarity</i> → <i>diversity openness</i> → <i>team working</i> → <i>effective communication</i> → <i>agile</i> 	<ul style="list-style-type: none"> → <i>technological executive</i> → <i>data processor</i> → <i>digital communication</i> → <i>data protection</i> → <i>advanced coding</i> → <i>process management</i> → <i>project management</i>

Having all these skills available for a bank represent a significant advantage. For this purpose, banks are encouraged to cultivate a personal development culture in order to encourage employees to grow in these soft and hard skills.

As for the soft skills, banks should foster a mind-set of long-life learning aiming at encouraging the workforce to always explore new capabilities and competencies and grow in their center of interests for themselves but also for the capitalization of knowledge of the company. The most renowned and efficient approach to learn new skills is the “learn by doing” approach. It is the technique adopted by UBP Bank whose interns are satisfied by its training program. Indeed, “learn by doing” consists in assigning challenging missions to employees pushing them to learn. However, they are not left alone in their challenge and are surrounded by experts. Despite the external support, they also develop their self-education skills and curiosity throughout the realization of their mission. When their objectives are met, they can feel personal satisfaction of self-development. This method is certified to be successful and largely used for the UBP Bank’s training program and should be adopted by all the banks willing to empower their employees through long-life learning.

Moreover, this approach prevents the “just-in case learning” which does not empower the staff to acquire new knowledge as there is a probability that their acquired capabilities will not be useful for their future career or for the company itself. Thus, by setting a “learn by doing” training approach and fostering a long-life learning, employees will always be encouraged to acquire new capabilities as it is part of the company’s culture and values.

6.2.7 Encourage upskilling and reskilling initiatives

Regarding the hard skills, banks should foster internal training in order to expand the toolkit of their employees. Knowledge development can represent a shared-advantage for the employees and the organization. For instance, UBS has developed a center called UBS University, which is a one-stop shop for all learning and development within the bank. This internal university offers a broad range of training and prepares the employees for even highly specialized certification. Having an internal university or offering training internally that are adapted to the company’s needs is an effective way to bridge the gap of capabilities of banks.

As for the IT skills, employees could also upgrade their knowledge so that they can find themselves promoted for a better job position which exploits most of their competencies. In a global survey of job seekers conducted by LinkedIn in 2017, 37% of respondents said their current job does not fully utilize their skills or provide enough challenge. (McKinsey & Company, 2017). Those employees can therefore be promoted for more challenging and stretching job positions. On the other hand, the employees who feel the need to upgrade their knowledge in IT could be offered some training.

Today, the job position depends on the digital and business level of the employee. Generally speaking, there are four different level in digital :

- Beginners are employees using only basic IT competencies in bank-internal systems;
- Advanced are employees mastering the standard banking software and the bank internal systems (e.g. customer relation officer);
- Expert are those who have significant experience with the digital products and services of the bank (e.g. customer support manager in e-banking);
- Professionals are the employees mastering code, data analytics, machine learning, artificial intelligence, ...

Employees should be encouraged to grow in their level of digital knowledge and even pass some specific certifications to expand their toolkit as employees so that their problem-solving skills can be enhanced, their analytical approach can be also developed and eventually, the bank could benefit from all the augmented knowledge of the employees.

This development of skills should be achieved by pulling benefits from innovative tools (see in section 6.2.8). Moreover, an internal network for sharing expertise or interest can also be created in order to keep the acquired knowledge active without losing it.

6.2.8 Innovative learning methods

To facilitate the learning of the requested knowledge and interpersonal skills needed to face digitization, it is imperative to vary the approach and the pace of training and increase the accountability of employees with respect to the training offers. There are several models of learning that exist today. This section is aiming at exposing the most trendy method used by service and financial industries today.

First of all, empowering employees and mobilizing their skills is essential to maintain the performance and pleasure at work. Thus, it is important to learn how to lead employees to get them involved in their learning journey and develop themselves while developing their autonomy. Having involved learners is key. It is important that they do not feel any obligation while willing to free up time to focus on their learning project. If the relevance and usefulness of the training is central, it is also crucial to design a scenario that motivates and attracts their attention. The best approach for that is the ludification of learning, which is a method that puts in direct relation the time invested and the increase in knowledge.

In comparison to video games, the captivation of the player's attention as long as possible is key to give her/him a feeling of satisfaction. In addition to keeping the learner's attention, the ludification of learning allows the learner's actions, progression and intermediate successes to be valued. And this valorisation and feeling of satisfaction is the essence of the ludification of learning.

The most renowned bank which decided to leverage the ludification is BBVA. The bank used this method to get its customers used to online banking. To do so, they used different types of game mechanics such as prizes, challenges, step by step development etc. in order to determine the best approach. As a result, the BBVA users spent more

time using the platform and have greater satisfaction. Thus, a similar practise should also be exploited for employees to motivate them in their learning of new skills.

Secondly, always in the aim of motivating employees to acquire new skills, group learning is also a successful way to support and motivate employees on a daily basis. This spirit of group learning combined with the use of social media and platforms is called social learning. Social Learning is an approach enabling employees to share, build and exchange with other colleagues, tutors or experts remotely via collaborative tools (chat, blog, ...) or corporate social networks. In this way, each learner can interact, share and give their opinion on their common center of interest. Eventually, the company will capitalize on their aggregate knowledge.

Social Learning encourages staff to learn from each other and collaborate in order to co-construct capabilities together. It is an informal learning approach where community members collaborate to nurture their knowledge, develop their skills, and progress together. Thus, the learner is no longer the sole recipient of the knowledge provided by a trainer, but becomes an active actor in the training system. This method exists in the financial industry for example but also in different sectors where a group of professionals get together thanks to a LinkedIn Group page in order to share their discoveries, news and trends on a specific topic such as the fintechns, data analytic tools, etc.

Thirdly, the necessity to learn the utilization of digital tools emerges from the utilization of more innovative methods such as serious games. The serious game is both a learning method and a simulation approach designed like a game whose objective is to find a solution to a professional problem. Serious games offer a simulation in realistic conditions and allow the evaluation of both skills and know-how.

For instance, the French bank LCL launched a recruitment campaign through the Serious Game named “e.Banker”. The participants carried out daily missions related to the various banking professions and earn points based on customer satisfaction. By doing so, the recruiters can fairly assess the capabilities of each applicant. Another example is BNP Paribas which has also developed a Serious Game for its employees to create a fictitious bank. This approach encourages the employees to develop their problem-solving skills, be innovative, collaborate and above all acquire new practices and knowledge.

Another alternative to Serious games is the Hackathons. They are collaborative work days, organized for employees or external public to prototype digital solutions, working on data, or solving problems together. These days are revolving around a theme, a

community and perspectives. Hackathons make it possible to respond to an identified problem, while raising the awareness of openness and collaboration through concrete cases. The benefits of these learning events is to animate the ecosystem, building new communities on the addressed themes and awake the interest and curiosity of the workforce.

Lastly, the more traditional way to build capabilities is to set up a digital university. Aquent, a worldly renowned recruiting company, has for example put in place an online university offering free courses on digital and communications. The training offered responds to today's in-demand skills such as coding, prototyping, creative designs and more. The ambition of this project is to create the talents of tomorrow and "bridge the gap between education and opportunity with free online courses" (thegymnasium.com, 2020). Moreover, the company offers attractive job positions to the students having achieved their certification. This approach motivates the participants to always achieve more.

Another alternative to corporate universities is Blended Training. Storebrand, which is the oldest financial service company in Norway offers this solution to its employees through the CrossKnowledge platform. Indeed, it delivers various types of contents to the staff on a daily basis in order to enrich their learning experience. The users can have a profile enabling them to track their progress and be tracked by their managers and the HR department who are interested in monitoring the learning activities of the staff. The "Storebrand learning program was designed to be agile and open in structure, while combining the best of digital and face-to-face interactions. It continually analyzes feedback, comments, and data to identify issues and evolve the design of programs. Each phase builds on what the company learned during the previous phase, to ensure that the program is engaging and continually responsive to learner needs." (CrossKnowledge.com, 2020).

6.2.9 HR exploratory projects manager

There various initiatives stated before are mostly about in-house training and practices aiming at developing the human capabilities of banks. However, there are emerging practices in the new digital world which are always more innovative and efficient. The responsibility of an HR Exploratory projects manager is to keep constantly informed, identify innovative practices, test and experiment them in order to adopt the best practices to the bank they work for.

The project manager can animate a network, stimulate synergies, be a coordinator, and intervene in different ways on projects within the HR perimeter. It is the internal actor of the company who is connected to what is happening externally and who develops energy to move the workforce collectively towards the development of innovative and in-demand skills.

Beyond the operational functions of the HR team, this role has been created within some companies to allow them to always be updated with the new HR practices. Moreover, this project manager has the power to awaken the workforce's curiosity and openness of the bank's managers towards the practices used in other sectors. The objective of the HR Exploratory projects manager is to develop individually and collectively a capacity for creativity and innovation within banks. The banks that decide to have this type of project manager can undoubtedly become more proactive than reactive and eventually outpace its competitors in terms of human capabilities building.

6.2.9.1 *Learning expedition (LX)*

There is another alternative to the HR Exploratory project manager, which involves all the managers of the bank : it is the Learning Expedition. The LX is an immersive experience in which participants engage in a new territory and explore its multiple dimensions (cultural, technological, managerial, ...) in order to learn and draw lessons. The ideal place of emergence and innovation is Silicon Valley in California. It is the favourite destination for LX even though it is quite possible to organize one in one's own city or country.

Learning expeditions fits perfectly in a hyper-connected era because it allows the participants to be exposed to other ways of doing, but also other ways of being, thinking and interacting. Immersing in a different universe enables the organization to question the right questions, to dare and to change. Experiencing an LX is a source of inspiration and an opportunity to discover and learn. It represents benefits for both individuals and the organization itself and above all, it offers the possibility to innovate and transform in record time.

A learning expedition often lasts a week, but can be organised for one or two days. The participants visit companies in their own sector of activity, or in a sector of activity far from their own. They discover start-ups as well as GAFA or non-profit organizations which are often models of success, but also sometimes of failure. This confronts them with reality. The important thing is that each program is tailor-made to meet its objectives

and offer concrete and sustainable solutions. The themes of an LX can vary according to the company's objectives: managerial innovation, technological innovation, strategy, reinventing a corporate culture, transformation, etc.

As an example, a non-profit organization called Efma, which is a network of 3000+ leading European banks aiming at strengthening the expertise and skills of its members, offers the possibility to organize an immersive expedition in the USA's banking culture and innovation. This learning expedition is an opportunity to "visit leading banks, Fintechs and industry experts which will help to explore the specific characteristics of US financial services" (Efma.com, 2019). This suggested program is opened to management positions and covers the hot topics such as Blockchain digitization, partnership, payments, regulation, user experience, etc.

The learning expedition is an initiative that an HR department could put in place to accompany some of their key leaders in order to empower them to undertake digital transformation and benchmark the most renowned leaders.

7. Conclusion

To sum up, there are five dimensions of Human Capital Management (HCM) which should be considered by the HR: the employee experience, the knowledge management, the digital leadership, the talent management and the HR digital ecosystem. The recommendations stated below are the most basic and the most used within banks at the moment. However, each bank should adopt the ones which best fit with its vision and strategy. Human Capital Management should be a serious subject within banks given the tough situation on the market regarding the talents sourcing. Indeed, there is a real necessity for caring for employees in times of digitalization because they are the innovation enablers. Therefore, they should be empowered to remain innovative and to become lifelong learners, their efforts should be rewarded either through compensation and benefits or through promotions so that they feel encouraged to always achieve more. The banks tend to forget valuing their workforce so the Swiss Government should also help them by creating financial incentives for banks to treat human capital like any other capital, through tax incentives for example, in order to encourage banks to invest in their human resources.

Moreover, given the digital and IT capability gaps that all the companies (not only banking) are facing at the moment, the policy makers and the Government could work on evolving education systems in order to put new emphasis on the key skills needed today and for the future such as creativity, technical literacy, adaptive collaboration, problem solving, entrepreneurial spirit, etc.

Before closing this research, it is legitimate to say a few words on how banks cope with the Covid-19 crisis and how they managed to handle the business and HR management during this uncertain period. According to Lombard Odier, agility was key during this crisis. This bank is one of the banks in Switzerland which have already implemented the mobile working even before the crisis. Thus, only 3% of the workforce were obliged to come to their workplace daily given their positions, whereas the remaining 97% were able to work from home. Thus, in contrast to the other banks, Lombard Odier did not need to set up an emergency massive plan to set up the telecommuting of its workforce.

However, for the banks which are lacking agility and proactivity, this crisis was a trigger to invest more on their process digitalization and shift to teleworking. Indeed, the restricted relations with their customers during this crisis drove them to automatize and digitize some of their process rapidly. As an example, UBS has been extensively solicited

by the SMEs for the request of bridge-loans, as granted by the Swiss Government. As a result, they needed to mobilize more than six hundred employees to deal with this new demand. Beside these employees, they also succeeded in involving a hundred robots in this process to lighten some administrative tasks such as the account opening or the issue of confirmation emails. This is a proof of a good mastering of technology and high level of agility of UBS.

Indeed, the Covid-19 crisis was an opportunity for banks to globally enhance the quality of their offer, their online service and improve their customer experience. Nonetheless, when the physical contact with the customer is limited, the digital communication becomes key. Therefore, banks were obliged to review their communication channels by adopting virtual tools. As a result, their digital ecosystem has been enhanced in a non-intentional way and they are evolving to always offer a service with an added-value to their customers under any circumstances.

Finally, for the banks who have adequately taken profit from this crisis, the Covid-19 crisis was a catalyst which accelerated the technological trends while highlighting the weaknesses of the actors who have not integrated the technological evolution yet. However, for the future, all the banks need to consider the extent to which they are prepared to adopt a more virtual business model. They will need to deploy support tools and leadership capabilities to ensure the best management of the employees, both on-site and remote, so that they remain motivated and productive in their roles. Thus, some new HR practices will emerge from this crisis, it can be another interesting subject to be deepened once the crisis will be over.

Bibliography

- 3 Best Practices for Digital HR Transformation in 2020 - Reviews, Features, Pricing, Comparison - PAT RESEARCH: B2B Reviews, Buying Guides & Best Practices, 2019. [online]. [Viewed 11 June 2020]. Available from: <https://www.predictiveanalyticstoday.com/best-practices-for-digital-hr-transformation/>
- 3 Ways HR Can Lead Digital Transformation, 2020. [online]. [Viewed 11 June 2020]. Available from: <https://www.cmswire.com/digital-workplace/3-ways-hr-can-lead-digital-transformation/>
- 4 Employee Experience metrics to drive your HR initiatives, 2020. [online]. [Viewed 6 August 2020]. Available from: <https://surveyPAL.com/2018/4-employee-experience-metrics-to-drive-your-hr-initiatives/>
- 4 Key Elements of an Impactful Workplace Digital Literacy Program, 2019. [online]. [Viewed 7 August 2020]. Available from: <https://www.cmswire.com/digital-workplace/4-key-elements-of-an-impactful-workplace-digital-literacy-program/>
- 4 Major Digital Marketing Trends Redefining Retail Banking, 2019. [online]. [Viewed 11 June 2020]. Available from: <https://thefinancialbrand.com/73190/digital-marketing-trends-retail-banking/?internal-link>
- 5 Leadership Styles for Digital Business [infographic] - Smarter With Gartner, 2019. [online]. [Viewed 25 March 2020]. Available from: <https://www.gartner.com/smarterwithgartner/how-to-adapt-your-leadership-style-for-digital-business-infographic/>
- 7 entreprises suisses avec une marque employeur canon! - Jobcampaign, 2019. [online]. [Viewed 14 August 2020]. Available from: <https://jobcampaign.ch/blog/7-entreprises-suisses-avec-une-marque-employeur-canon-et-comment-vous-en-inspirer/>
- 8 Key Trends Changing the Banking Landscape | Fintech Schweiz Digital Finance News – FintechNewsCH, 2020. [online]. [Viewed 16 August 2020]. Available from: <https://fintechnews.ch/fintech/8-key-trends-changing-the-banking-landscape/35761/>
- 10 Use Cases of RPA in Banking Industry, 2019. [online]. [Viewed 11 July 2020]. Available from: <https://www.comtecinfo.com/rpa/use-cases-of-rpa-in-banking-industry/>
- 2017_06_08_dti_digitalculture_report_final.pdf, 2017. [online]. [Viewed 16 July 2020]. Available from: https://www.capgemini.com/fr-fr/wp-content/uploads/sites/2/2017/08/2017_06_08_dti_digitalculture_report_final.pdf
- About | Gymnasium, 2020. [online]. [Viewed 13 August 2020]. Available from: <https://www.thegymnasium.com/about>
- Action Plan for HR as Artificial Intelligence Spreads - Smarter With Gartner, 2018. [online]. [Viewed 25 March 2020]. Available from: <https://www.gartner.com/smarterwithgartner/action-plan-for-hr-as-artificial-intelligence-spreads/>
- ARMSTRONG, Michael and ARMSTRONG, Michael, 2011. *Armstrong's handbook of strategic human resource management*. 5th ed. London ; Philadelphia: Kogan Page. ISBN 978-0-7494-6394-6.
- HF5549 .A89784 2011

Bank and Automation, 2017. [online]. [Viewed 10 July 2020]. Available from: <https://www.mckinsey.com/~media/McKinsey/Industries/Financial%20Services/Our%20Insights/The%20transformative%20power%20of%20automation%20in%20banking/The-transformative-power-of-automation-in-banking.pdf>

Banking & Finance, 2020. [online]. [Viewed 6 August 2020]. Available from: <https://cyp.ch/fr/smart-education/banking-finance>

Banking Industry Cuts Millions of Jobs Forced by AI and Digitization in Banking • UXDA, 2020. [online]. [Viewed 10 July 2020]. Available from: <https://www.uxdesignagency.com/blog/banks-will-cut-millions-of-jobs-in-the-next-decade>

Banking's Digital Talent Crisis: Who Will Fill the Tech Void?, 2019. [online]. [Viewed 10 July 2020]. Available from: <https://thefinancialbrand.com/69774/digital-banking-hr-technology-hiring-jobs/>

Banques et assurances, 2019. [online]. [Viewed 29 April 2020]. Available from: <https://www.eda.admin.ch/aboutswitzerland/fr/home/wirtschaft/finanzplatz/banken-und-versicherungen.html>

Banques : S'adapter aux nouvelles typologies de clients. | Blog Accenture Banque, 2017. [online]. [Viewed 2 May 2020]. Available from: https://bankingblog.accenture.com/francais/banques-sadapter-aux-nouvelles-typologies-de-clients?lang=fr_FR

Becoming a "Digital Bank" Requires More Than Technology, 2020. [online]. [Viewed 11 June 2020]. Available from: <https://thefinancialbrand.com/82504/digital-banking-transformation-technology-requires-cultural-reboot/?internal-link>

BLANC, Aldwin, 2017. *Les Fintechs sont-elles une opportunité ou une menace pour les banques traditionnelles ?* Genève: Haute Ecole de Gestion.

Brochure_Digitalisation_in_Banking_02062020_final-2.pdf, 2020. [online]. [Viewed 30 July 2020]. Available from: https://www.rundstedt.ch/wp-content/uploads/2020/06/Brochure_Digitalisation_in_Banking_02062020_final-2.pdf

Build a Vibrant Internal Labor Market and Increase Your Talent Pool - Smarter With Gartner, 2018. [online]. [Viewed 25 March 2020]. Available from: <https://www.gartner.com/smarterwithgartner/build-a-vibrant-internal-labor-market-and-increase-your-talent-pool/>

Business relationships, 2019. [online]. [Viewed 8 August 2020]. Available from: <https://www.unil.ch/hec/partnerships/corporate-relations>

Career development | UBS Global topics, 2020. [online]. [Viewed 30 July 2020]. Available from: <https://www.ubs.com/global/en/careers/why-ubs/career-development.html>

Case Study: BBVA Drives Online Banking Use With Game Mechanics, 2013. [online]. [Viewed 13 August 2020]. Available from: <https://www.forrester.com/report/Case+Study+BBVA+Drives+Online+Banking+Use+With+Game+Mechanics/-/E-RES101441#>

CERTIFICAT EN DIGITAL FINANCE (CDF) - ISFB, 2020. [online]. [Viewed 8 August 2020]. Available from: <https://www.isfb.ch/certificat-en-digital-finance-cdf/>

ch-fr-cb-digital-consumer-swiss-retail.pdf, 2017. [online]. [Viewed 28 June 2020]. Available from:

<https://www2.deloitte.com/content/dam/Deloitte/ch/Documents/consumer-business/ch-fr-cb-digital-consumer-swiss-retail.pdf>

Comment retenir les talents dans une entreprise? — BetterStudy - Swiss Online Education, 2020. [online]. [Viewed 14 August 2020]. Available from: **<https://betterstudy.ch/comment-retenir-les-talents-dans-une-entreprise/>**

Commercial : 5 bonnes raisons de choisir le secteur bancaire pour exercer votre métier, 2020. [online]. [Viewed 14 August 2020]. Available from: **<https://blogrecrutement.bpce.fr/commercial-bonnes-raisons-choisir-secteur-bancaire>**

Corporate governance principles for banks, 2015. [online]. [Viewed 28 June 2020]. Available from: **<https://www.bis.org/bcbs/publ/d328.pdf>**

Deutsche_Bank_Human_Resources_Report_2018.pdf, 2018. [online]. [Viewed 16 July 2020]. Available from: **https://www.db.com/ir/en/download/Deutsche_Bank_Human_Resources_Report_2018.pdf**

Digital Banking Maturity Study | Financial Services | Deloitte Switzerland, 2020. [online]. [Viewed 11 June 2020]. Available from: **<https://www2.deloitte.com/ch/en/pages/financial-services/articles/digital-banking-maturity.html>**

Digital Banking Transformation: Where Should You Start?, 2018. [online]. [Viewed 11 June 2020]. Available from: **<https://thefinancialbrand.com/75698/digital-banking-transformation-strategies-trends/?internal-link>**

Digital disruption could make or break the banking sector | World Finance, 2019. [online]. [Viewed 16 August 2020]. Available from: **<https://www.worldfinance.com/markets/digital-disruption-could-make-or-break-the-banking-sector>**

Digital Employee Experience Bridges the Gap Between HR and IT, 2018. [online]. [Viewed 11 June 2020]. Available from: **<https://www.cmswire.com/digital-workplace/digital-employee-experience-bridges-the-gap-between-hr-and-it/>**

Digital Future of Banking Requires New Leadership Model, 2020. [online]. [Viewed 11 June 2020]. Available from: **<https://thefinancialbrand.com/81901/future-digital-banking-leadership-model/?internal-link>**

Digital Organization, 2019. [online]. [Viewed 7 August 2020]. Available from: **<https://www.bcg.com/capabilities/people-organization/digital-organization>**

Digital Transformation Will Stall if You Don't Prepare Your Employees, 2019. [online]. [Viewed 17 July 2020]. Available from: **<https://www.cmswire.com/digital-workplace/digital-transformation-will-stall-if-you-dont-prepare-your-employees/>**

dttl-hc-hrtbenchmarksbanks-8092013.pdf, 2012. [online]. [Viewed 9 July 2020]. Available from: **<https://www2.deloitte.com/content/dam/Deloitte/global/Documents/HumanCapital/dttl-hc-hrtbenchmarksbanks-8092013.pdf>**

Ecosystème d'open innovation | Société Générale, 2020. [online]. [Viewed 8 August 2020]. Available from: **<https://www.societegenerale.com/fr/innovation-et-digital/open-innovation/ecosysteme-open-innovation>**

Efma - Learning Expedition in USA, 2019. [online]. [Viewed 13 August 2020]. Available from: **https://www.efma.com/business_trip/overview/652**

Employee Experience, Measurement and Metrics - Customer Experience Update, 2019. [online]. [Viewed 6 August 2020]. Available from: <https://www.customerexperienceupdate.com/employee-experience/measurement/metrics/?open-article-id=10874762&article-title=5-factors-to-successfully-measure-employee-experience-in-your-organization&blog-domain=inmoment.com&blog-title=inmoment>

En 2020, la banque doit être ouverte et “coopétitive,” 2020. [online]. [Viewed 8 August 2020]. Available from: <https://www.journaldunet.com/economie/finance/1491309-en-2020-la-banque-doit-etre-ouverte-et-coopetitive/>

en_press-release_digital-pulse-check-20190115.pdf, 2019. [online]. [Viewed 11 June 2020]. Available from: https://www.sfi.ch/resources/public/dtc/media/en_press-release_digital-pulse-check-20190115.pdf

Etude_competences_metiers_2025_web.pdf, 2018. [online]. [Viewed 30 July 2020]. Available from: https://www.wiserskills.com/wp-content/uploads/2018/12/Etude_competences_metiers_2025_web.pdf

First Bank Mission and Values, 2020. [online]. [Viewed 16 July 2020]. Available from: <https://www.firstbanks.com/About-Us/About-First-Bank/Topics/Mission-Values>

Gamification for Employee Development at Storebrand | CrossKnowledge, 2020. [online]. [Viewed 13 August 2020]. Available from: <https://www.crossknowledge.com/clients-case-studies/storebrand-employee-development>

Going Digital: The Banking Transformation Roadmap - Article - Spain - Kearney, 2019. [online]. [Viewed 1 July 2020]. Available from: <https://www.es.kearney.com/financial-services/article/?a/going-digital-the-banking-transformation-roadmap>

GOULET, Andrea, FOUKS, Benjamin, CHAINTREUIL, Jean-Noël and LE GALL, Yann-Etienne, 2015. *RH & digital: regards collectifs de RH sur la transformation digitale*. S.I.: Diateino. ISBN 978-2-35456-102-4.

How CIOs Achieve Digital Value at Scale - Smarter With Gartner, 2017. [online]. [Viewed 25 March 2020]. Available from: <https://www.gartner.com/smarterwithgartner/how-cios-achieve-digital-value-at-scale/>

How Leaders Create and Use Networks, 2007. [online]. [Viewed 2 August 2020]. Available from: <https://hbr.org/2007/01/how-leaders-create-and-use-networks>

HR Metrics Cheat Sheet, 2020. [online]. [Viewed 8 August 2020]. Available from: https://www.aihr.com/resources/AIHR_HR_Metrics_Cheat_sheet.pdf

Innovation for the 21st Century Banking Industry | OpenMind, 2020. [online]. [Viewed 11 June 2020]. Available from: <https://www.bbvaopenmind.com/en/articles/innovation-for-the-21st-century-banking-industry/>

Innovation in Banking Demands Supportive Culture from Top Down, 2020. [online]. [Viewed 11 June 2020]. Available from: <https://thefinancialbrand.com/76007/bank-innovation-hackathon-culture-trends-intesea-sanpaolo-novathon/?internal-link>

La digitalisation doit aussi avoir un visage | POINTSFORTS, 2019. [online]. [Viewed 31 May 2020]. Available from: <https://www.bcv.ch/pointsforts/Votre-argent/2019/La-digitalisation-doit-aussi-avoir-un-visage>

La transformation commence par celle des équipes, 2019. [online]. [Viewed 19 March 2020]. Available from: https://www.natixis.com/natixis/jcms/lpaz5_75814/fr/la-transformation-commence-par-celle-des-equipes

Learning by doing : l'UBP plébiscitée par ses stagiaires - UBP, 2019. [online]. [Viewed 30 July 2020]. Available from: <https://www.ubp.com/fr/newsroom/learning-by-doing-lubp-plebiscitee-par-ses-stagiaires>

L'écosystème digital à l'heure du covid-19, un vecteur de croissance | Lombard Odier, 2020. [online]. [Viewed 8 August 2020]. Available from: <https://www.lombardodier.com/fr/contents/corporate-news/in-the-news/2020/may/the-digital-ecosystem-in-the-tim.html>

Les banques suisses s'attendent à une numérisation et une concurrence fortes | Agefi.com, 2019. [online]. [Viewed 15 August 2020]. Available from: <https://www.agefi.com/home/entreprises/detail/edition/online/article/les-banques-suissees-sattendent-a-une-numerisation-et-une-490101.html>

Les banques suisses sur la voie d'un nouveau monde du travail - Employeurs Banques, 2019. [online]. [Viewed 15 August 2020]. Available from: <https://www.employeurs-banques.ch/actuel/les-banques-suissees-sur-la-voie-d-un-nouveau-monde-du-travail>

Les Gafa constituent une menace pour le secteur bancaire - Actualités Fintech, 2019. [online]. [Viewed 15 August 2020]. Available from: <https://www.agefi.fr/fintech/actualites/quotidien/20191219/gafa-constituent-menace-secteur-bancaire-289633>

Les Serious Games s'invitent dans les banques ! - billet de banque, 2015. [online]. [Viewed 13 August 2020]. Available from: <https://billetdebanque.panorabanques.com/banque/les-serious-games-sinvitent-dans-les-banques/>

L'inbound recruiting, c'est quoi ?, 2019. [online]. [Viewed 14 August 2020]. Available from: <https://www.easyrecrue.com/fr/blog/inbound-recruiting>

Lombard Odier investit dans Taurus, un des leaders suisses de la fintech | Lombard Odier, 2020. [online]. [Viewed 14 August 2020]. Available from: <https://www.lombardodier.com/fr/contents/corporate-news/media-releases/2020/april/lombard-odier-invests-in-leading.html>

MGI-Future-of-Work-Briefing-note-May-2017.ashx, 2017. [online]. [Viewed 7 June 2020]. Available from: <https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Employment%20and%20Growth/Technology%20jobs%20and%20the%20future%20of%20work/MGI-Future-of-Work-Briefing-note-May-2017.ashx>

Microsoft PowerPoint - 02_ENF2019_Bucharest_MauritsButter_W1.pptx, 2019. [online]. [Viewed 13 August 2020]. Available from: https://www.euronanoforum2019.eu/wp-content/uploads/2019/07/02_ENF2019_Bucharest_MauritsButter_W1.1.pdf

Microsoft PowerPoint - WEF - Disruptive Innovation Report FINAL.pptx, 2015. [online]. [Viewed 6 August 2020]. Available from: http://www3.weforum.org/docs/WEF_The_future_of_financial_services.pdf

Microsoft Word - Fiche_Des_projets_numeriques_montez_un_hackathon.docx, 2019. [online]. [Viewed 13 August 2020]. Available from: https://www.modernisation.gouv.fr/sites/default/files/fiche_des_projets_numeriques_montez_un_hackathon_2.pdf

Mobilité en entreprise: avantages, inconvénients, nos solutions!, 2020. [online]. [Viewed 14 August 2020]. Available from: <https://www.cerfi.ch/fr/Actualites/Mobilite-en-entreprise-avantages-inconvenients-nos-solutions.html>

Motivate Employees to Reskill for the Digital Age - Smarter With Gartner, 2019. [online]. [Viewed 25 March 2020]. Available from: <https://www.gartner.com/smarterwithgartner/motivate-employees-to-reskill-for-the-digital-age/>

Pour une innovation tech à impact | Liberté Living-lab | Paris, 2020. [online]. [Viewed 8 August 2020]. Available from: <https://www.liberte.paris/>

Reskilling the Workforce Infographic, 2019. [online]. [Viewed 25 March 2020]. Available from: <https://www.gartner.com/en/confirmation/human-resources/trends/reskilling-the-workforce-infographic>

Skills 4.0, 2020. [online]. [Viewed 6 August 2020]. Available from: <https://cyp.ch/fr/smart-education/skills40>

Société Générale Private Banking (Suisse) SA | Deloitte Switzerland | Client stories, 2016. [online]. [Viewed 8 August 2020]. Available from: <https://www2.deloitte.com/ch/en/pages/about-deloitte/articles/client-stories-societe-generale.html>

Step up your Internal Audit workforce, 2019. [online]. [Viewed 6 August 2020]. Available from: <https://www.pwc.ch/en/insights/risk/future-of-risk-2019/step-up-your-internal-audit-workforce.html>

Swiss Consumers Not Interested in Banking with Google and Co. - moneyland.ch, 2019. [online]. [Viewed 28 June 2020]. Available from: <https://www.moneyland.ch/en/banking-insurance-fintech-survey-switzerland-2019>

Talent News - Talent & Organization Blog for Financial Services, 2019. [online]. [Viewed 7 August 2020]. Available from: <https://talentorganizationblog.accenture.com/financialservices/talent-news>

Technology, jobs, and the future of work | McKinsey, 2017. [online]. [Viewed 7 June 2020]. Available from: <https://www.mckinsey.com/featured-insights/employment-and-growth/technology-jobs-and-the-future-of-work>

The BIS Innovation Hub explained, 2019. [online]. [Viewed 13 August 2020]. Available from: https://www.bis.org/podcast_191218.htm

The Digital Revolution in the Heart of Banks | EDHEC Student Finance Club, 2018. [online]. [Viewed 16 August 2020]. Available from: <https://www.edhecstudentfinanceclub.com/the-digital-revolution-in-the-heart-of-banks/>

The Employee Experience Index, 2019. [online]. [Viewed 6 August 2020]. Available from: <https://www.ibm.com/downloads/cas/JDMXPMBM>

The Employee Experience of Financial Services Workers, 2019. [online]. [Viewed 7 August 2020]. Available from: <https://www.ibm.com/downloads/cas/Y585VBGD>

The future of talent in banking: workforce evolution in the digital era, 2018. [online]. [Viewed 10 July 2020]. Available from: [https://www.ey.com/Publication/vwLUAssets/ey-the-future-of-talent-in-banking/\\$FILE/ey-the-future-of-talent-in-banking.pdf](https://www.ey.com/Publication/vwLUAssets/ey-the-future-of-talent-in-banking/$FILE/ey-the-future-of-talent-in-banking.pdf)

The Gartner 2020 CIO Agenda: Winning in the Turns - Smarter With Gartner, 2019. [online]. [Viewed 25 March 2020]. Available from:

<https://www.gartner.com/smarterwithgartner/the-gartner-2020-cio-agenda-winning-in-the-turns/>

The Power of People in Digital Banking Transformation, 2015. [online]. [Viewed 7 August 2020]. Available from: **<https://www.bcg.com/publications/2015/power-people-digital-banking-transformation-financial-institution>**

These 3 technologies will permanently change the banking sector | World Economic Forum, 2019. [online]. [Viewed 13 April 2020]. Available from: **<https://www.weforum.org/agenda/2019/01/these-3-technologies-will-permanently-change-the-banking-sector/>**

Three Barriers to Banking Innovation, 2020. [online]. [Viewed 28 June 2020]. Available from: **<https://thefinancialbrand.com/55915/banking-innovation-challenges-barriers/>**

Top 10 Retail Banking Trends and Predictions For 2019, 2019. [online]. [Viewed 11 June 2020]. Available from: **<https://thefinancialbrand.com/78423/2019-top-banking-trends-predictions-outlook-digital-fintech-data-ai-cx-payments-tech/?internal-link>**

Transforming digital banking services for businesses - Article | the-new-rules-of-money | BBC StoryWorks, 2020. [online]. [Viewed 11 June 2020]. Available from: **<http://www.bbc.com/storyworks/future/the-new-rules-of-money/transforming-digital-banking-services-for-businesses>**

tw-banking-business-models-of-the-future-2016.pdf, 2019. [online]. [Viewed 16 August 2020]. Available from: **<https://www2.deloitte.com/content/dam/Deloitte/tw/Documents/financial-services/tw-banking-business-models-of-the-future-2016.pdf>**

UBS picks new CEO with track record in digital banking, 2020. [online]. [Viewed 16 July 2020]. Available from: **<https://www.businessinsider.fr/us/ubs-picks-new-ceo-with-track-record-in-digital-banking-2020-2>**

Upskill my workforce for the digital world, 2020. [online]. [Viewed 7 August 2020]. Available from: **<https://www.pwc.com/gx/en/services/people-organisation/upskill-my-workforce-for-the-digital-world.html>**

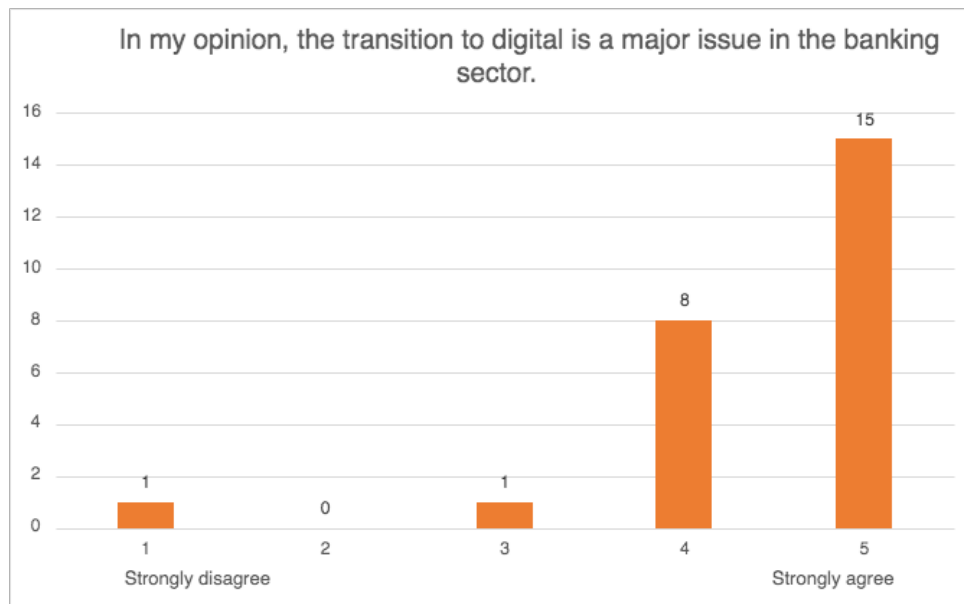
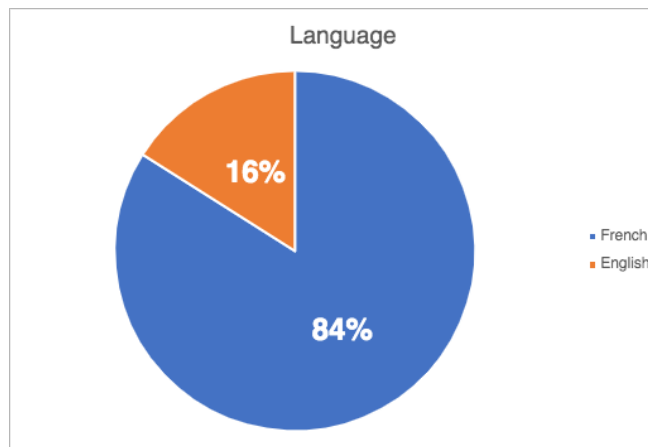
us-cons-capability-led-transformation-in-banking.PDF, 2016. [online]. [Viewed 1 July 2020]. Available from: **<https://www2.deloitte.com/content/dam/Deloitte/us/Documents/financial-services/us-cons-capability-led-transformation-in-banking.PDF>**

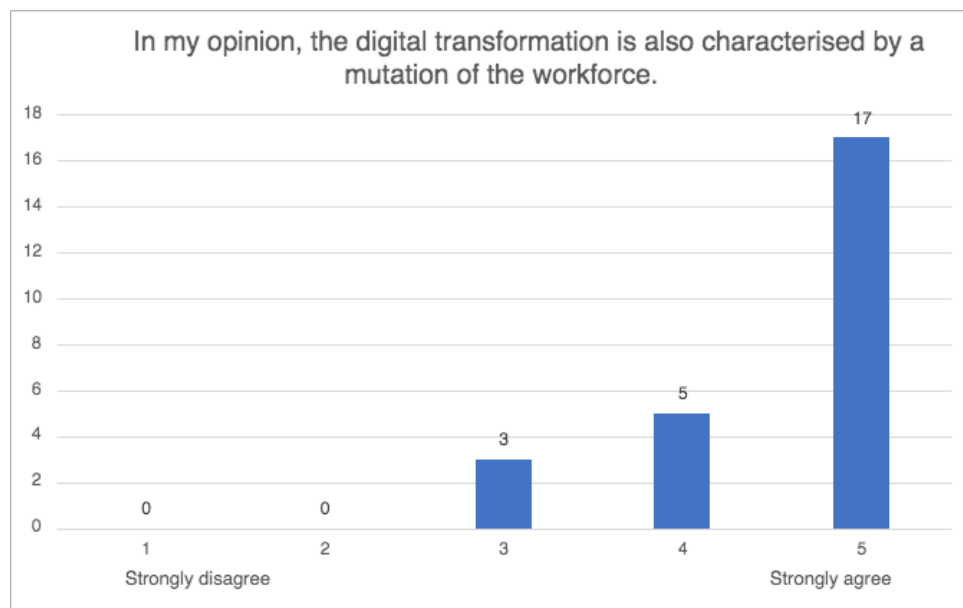
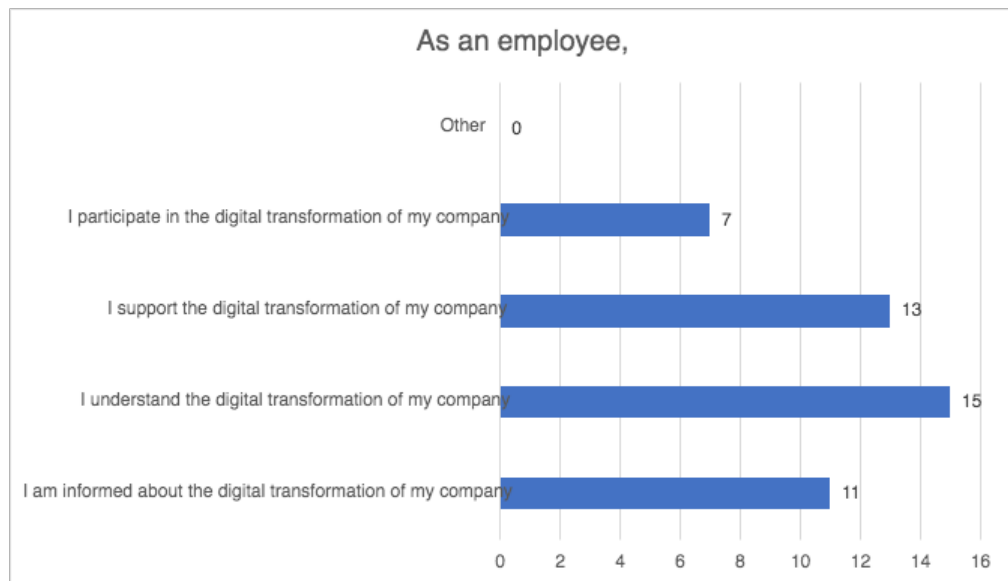
What Makes A Great Digital Banking Transformation Leader?, 2019. [online]. [Viewed 11 June 2020]. Available from: **<https://thefinancialbrand.com/80704/sonia-wedrychowicz-chase-digital-transformation-technology-interview/?internal-link>**

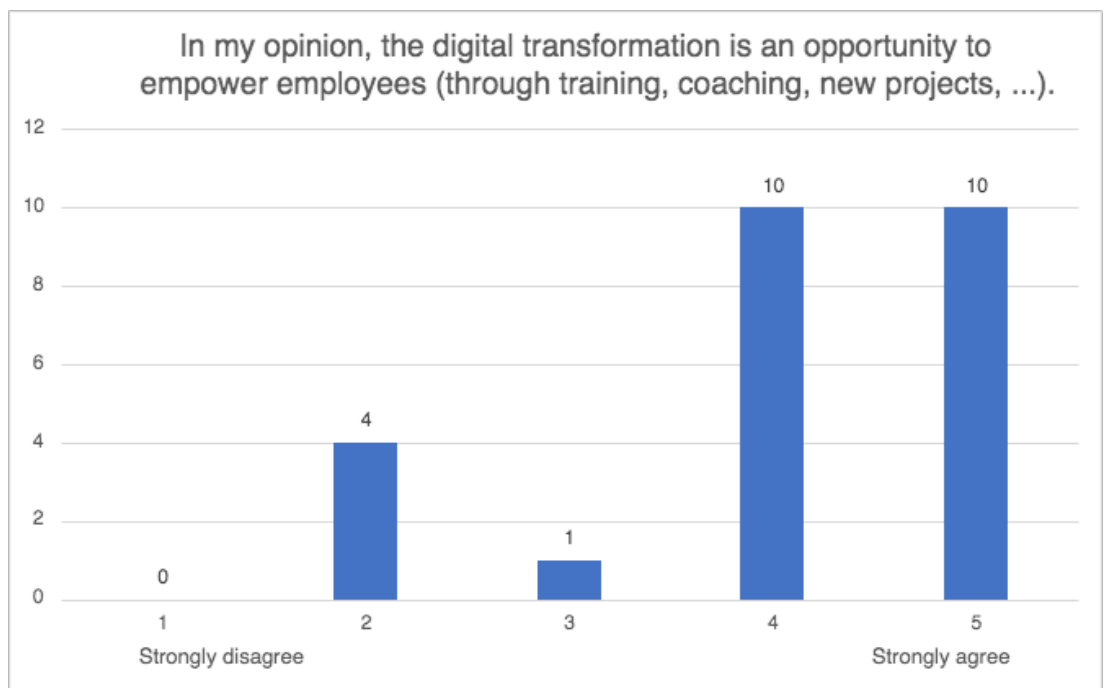
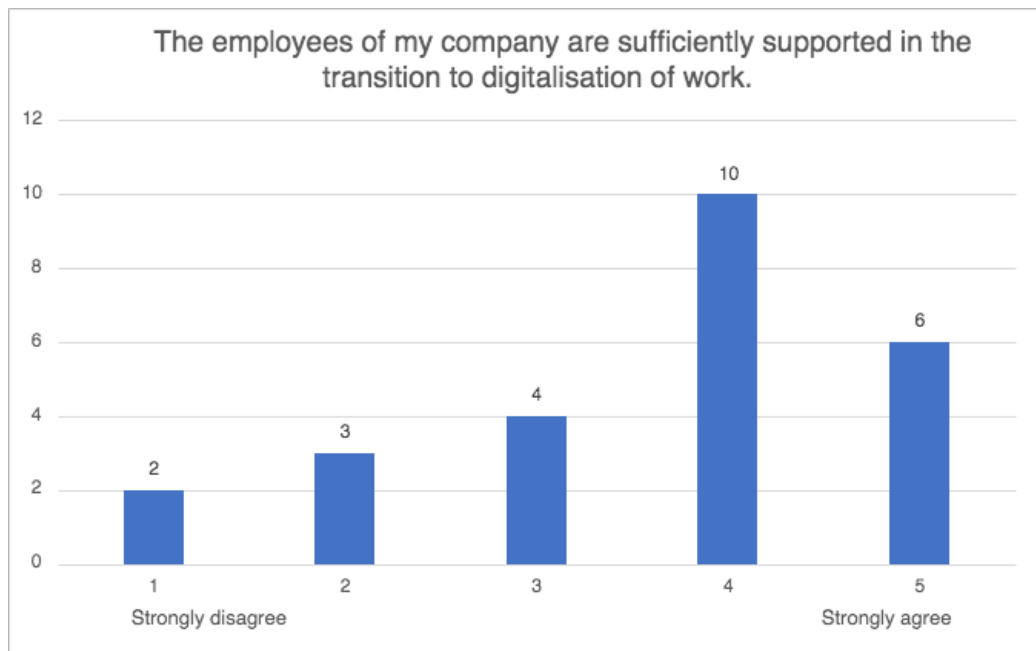
What will the bank of the future look like? | World Economic Forum, 2016. [online]. [Viewed 13 April 2020]. Available from: **<https://www.weforum.org/agenda/2016/02/what-will-the-bank-of-the-future-look-like/>**

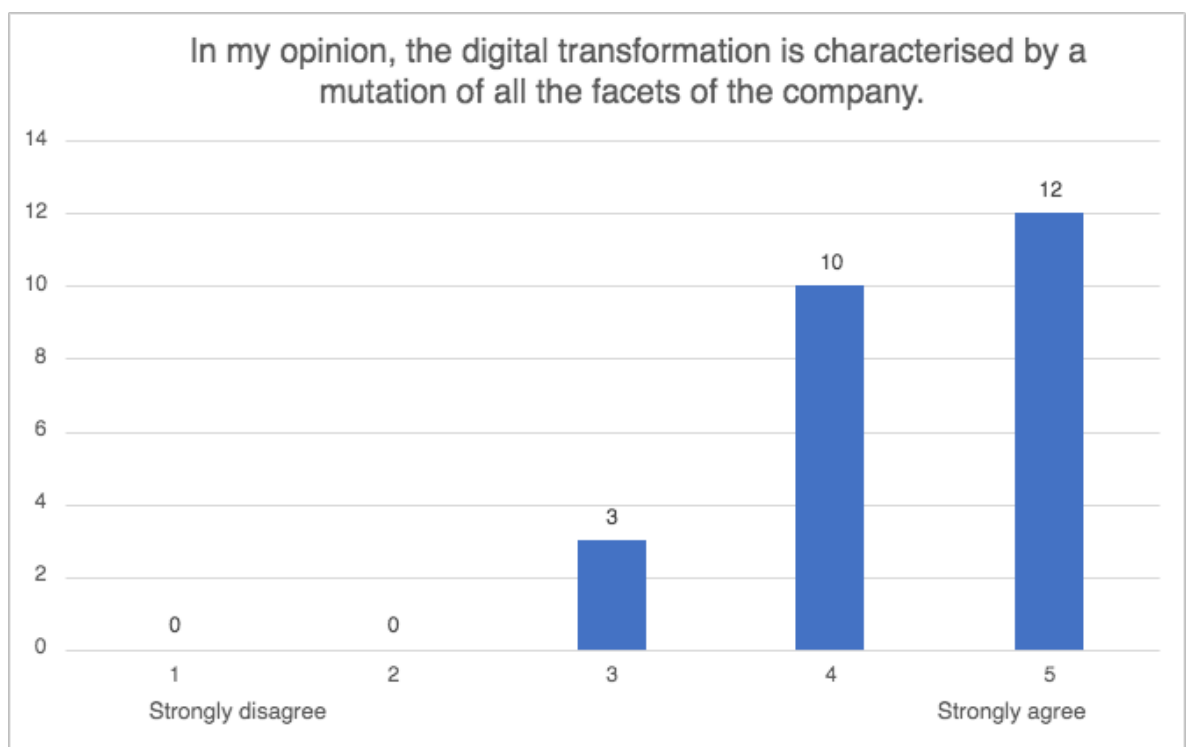
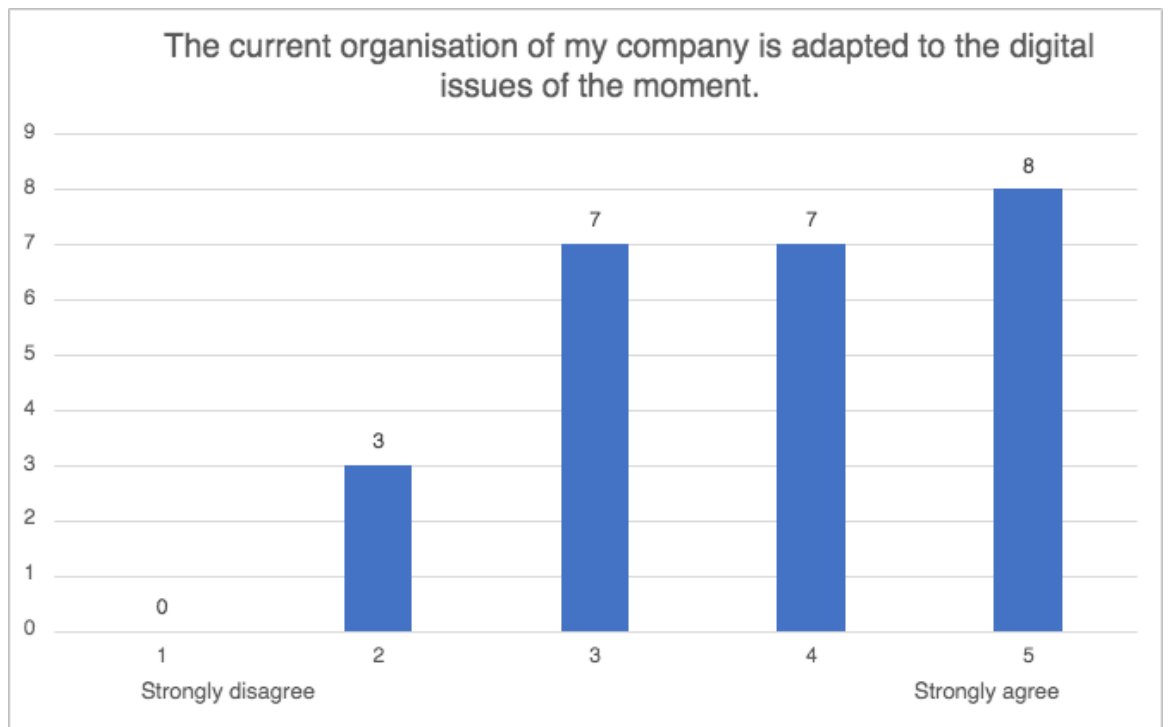
Why Employee Experience Is Crucial to Successful Digital Transformation, 2020. [online]. [Viewed 17 July 2020]. Available from: **<https://www.reworked.co/digital-workplace/why-employee-experience-is-crucial-to-successful-digital-transformation/>**

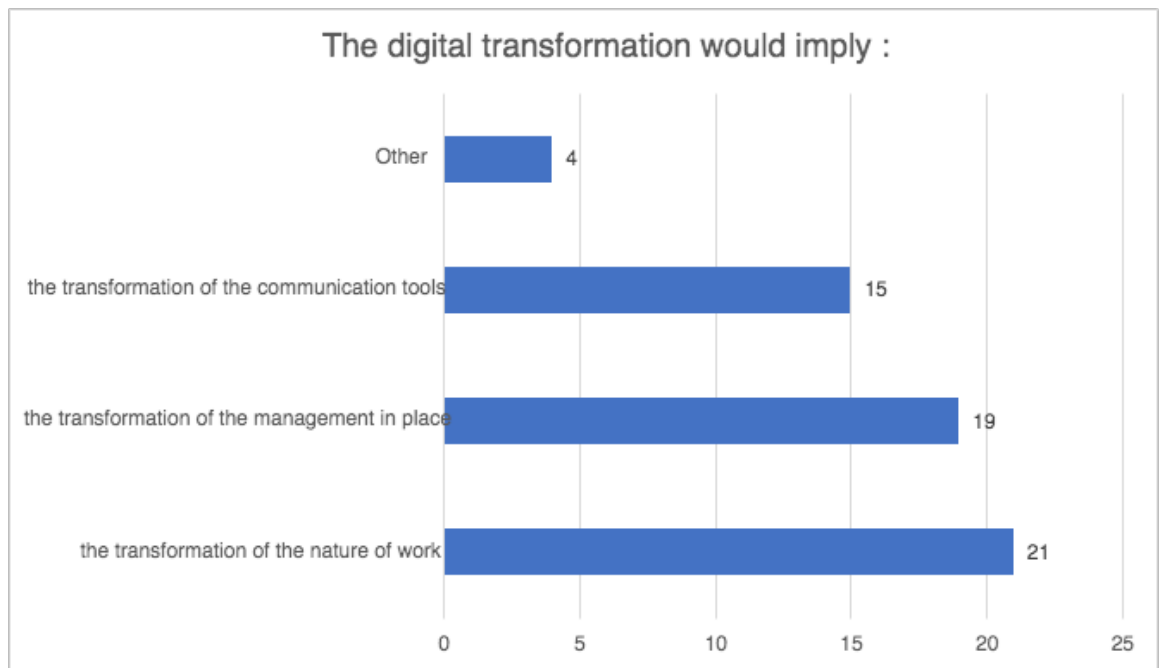
Appendix 1: Results of the survey responded by 25 people











Other :

- Accompagnement au changement
- changement de cahier de charges
- L'adaptation des infrastructures informatiques et le changement des mentalités (car les gens ont tendance à résister au changement).
- mobilité du travail

