



HAL
open science

”Digitalisation and Artificial Intelligence: the New Face of the Retail Banking Sector. Evidence from France and Spain”

Coralie Perez, Fuensanta Martin

► To cite this version:

Coralie Perez, Fuensanta Martin. ”Digitalisation and Artificial Intelligence: the New Face of the Retail Banking Sector. Evidence from France and Spain”. 2018. halshs-01884121

HAL Id: halshs-01884121

<https://shs.hal.science/halshs-01884121>

Preprint submitted on 15 Jun 2021

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L’archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d’enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

CHAPTER 5 – Digitalisation and Artificial Intelligence: the New Face of the Retail Banking Sector. Evidence from France and Spain

Coralie Perez and Fuensanta Martín

with the support of Nuria Corchado and Laura Fernández

1	Introduction	179
2	The Company Sample	180
3	Innovation Dynamics in Retail Banking.....	184
3.1	A historically innovative industry	184
3.2	Recent trends of innovation: digitisation and Artificial Intelligence	185
3.3	Strategies that foster innovation.....	189
4	Impact of Technological and Organisational Changes on Job Quality.....	194
4.1	Retail banking: a macro overview of a declining sector?.....	195
4.2	Sales forces: the main changes regarding employment and JQ.....	197
4.3	The need for new skills and competencies: an issue that challenges HRM.....	205
4.4	New players: a bed of roses?	207
4.5	A cross-case comparison: from job polarisation to job enrichment	211
4.6	A common feature: the worsening of work conditions.....	218
5	Conclusion	224
6	References	227
7	List of Case Study Reports and Industry Profiles	228
8	Annex – Summaries of Case Studies	229

1 Introduction

The focus of this chapter is on the *retail banking industry* and the main innovations that have affected its activities in the past ten years. The aim is to analyse the interactions between these innovations and job quality (JQ). This concerns not only *employment*: employment contracts, wages, career opportunities and training. But it relates also to *working conditions*. To address this issue, we rely on several case studies in Spain and France (respectively two and three case studies).

In 2014, the banking sector employed 370,000 persons in France,²³ and 209,000 in Spain, making it one of the leading private sector employers in services, representing around 3% of the private workforce in each country (source: Observatoire des métiers de la banque, 2015; RegioPlus Consulting, 2017a). Among financial activities, retail banking activities account for about 70% of employees in each country.

In the aftermath of the 2008 crisis, both countries faced key challenges that have shaped both the implementation of various innovations and the evolution of employment and job quality in the retail banking industry.

First, all banking networks have been confronted with new regulations at the international, European and national level, such as the European Payment Services Directive. Regarding employment, these regulations have necessitated the restructuring of some activities for compliance reasons. This has had some effects on employment in corporate investment banking activities but also in retail banking (through regulation on consumer protection for example). Regarding innovation, regulations may be considered as impediments, or at least as brakes, acting on innovation rather than as promoting it, because of the costs in time and money they entail.

Moreover, following the 2008 crisis, interest rates decreased sharply, and they have remained historically low since then. Therefore, banks have tried to reduce their costs, restructuring (i.e. ‘resizing’) their networks. Branch numbers have been cut particularly in southern European countries where networks were still very dense (branches relative to inhabitants) compared to northern European countries. This process has been especially severe in Spain, where all the savings banks (*las Cajas*) disappeared after 2009 (see Castillo, 2013). Such restructuring started before the 2008 crisis but was amplified by it. In this context, digitisation has been used to accelerate (and sometimes to justify) restructuring and the ensuing job cuts.

Second, customer behaviour has dramatically changed over the past ten years, particularly due to the facilities provided by Internet and cell phones. As the number of digital customers has been increasing, banks have had to offer new products that can be accessed online via Internet. That is a powerful driver of marketing and process innovations in retail banking. As customers visit bank premises less often, almost all the banking networks have announced branch closures. The consequences on employment have been significant, reinforcing the impact of the financial crisis.

²³ FBF-AFB perimeter (i.e. including mutual and cooperative banks).

Third, in an online bank market which is already quite competitive, new competitors offering cheaper bank services have emerged. ‘Pure players’ that started by offering online banking services to connected clients have begun to develop more services like loans at cheaper costs than more ‘traditional’ banks. In the market segment of payment means, traditional banks compete with new players like ICT companies or retailers. For instance in France, Orange (with 29 million clients) launched Orange Bank in May 2017 with 400,000 clients forecast for the end of 2017, and 2 million in 2024. In April 2017, the retailer Carrefour unveiled a new product: a bank account for only €5.

In this context, banking networks have to boost their online business to counter both low-cost Internet competitors and falls in visitor numbers to local branches. All these challenges explain why it is difficult to disentangle the effects of innovation from other factors that could have accelerated changes through the take-up of innovation and affected directly or not employment and job quality in this industry.

Regarding *innovations*, retail banking has been particularly exposed to changes driven by *digitisation* (encompassing various kinds of changes) and, more recently, by *artificial intelligence*. These changes have been transforming profoundly the contents of jobs in the main occupations/transactions carried out by banking advisors and, more broadly, the organisation of work in the whole industry (the division of labour between back and front offices, new activities created as distinct organisational units or integrated into existing units). As such, *organisational choices* shape the implementation of innovations and subsequently the effects on employment and job quality. This assumption has structured our fieldwork (see the company sample in Section 2) and research.

This chapter is structured as follows. Section 2 presents our company sample, the reasons why we chose these firms and some methodological remarks regarding our fieldwork in Spain and France. Section 3 reviews further the details of innovation trends in banking, over the past 10 years, seen from the perspective of the companies we studied and the organisational choices they have made. Two main recent drivers of innovation are considered here: digitisation and artificial intelligence. Section 4 deals with the impact of these innovations on employment and job quality. Customer advisors are the main occupation group in retail banking so far and thus are particularly concerned by technological and organisational changes. Two strategies have been identified in our company sample and are presented here: job polarisation and job enrichment. Overall, worsening working conditions are a common feature whatever the company and its strategy. This observation is developed before we conclude the chapter.

2 The Company Sample

Our research design relies on case studies in various establishments in the banking sector. The aim was to conduct interviews, in each establishment, with managers, ideally at different levels of the organisation, including the human resources manager, with union delegates and, if possible, with some employees. Previously, we met some experts in order to select better our companies and to specify our questions.

At the time of the survey, most of the banking networks had announced branch closures through press releases. Therefore, getting agreement from managers in the industry to be interviewed was extremely difficult.

Finally, five companies accepted to participate in the research (see Table 1). The sample of case studies may not be representative, statistically speaking. But it had to be illustrative enough of potentially different situations that could influence the interaction between innovation and job quality in the retail banking industry.

Table 1: Overview of the Case Studies

Pseudonym	type of company / establishment	number of employees (< = 50; 51-500; 501-2.500; > 2.500) and number of branches	number of interviews (+ interviewed persons*)
SP-COMMERCIAL	Commercial bank, operating world-wide.	> 2.500 employees in Spain ~ 3.000 branches	8 – including 1 affiliated worker and 2 trade union representatives
SP-FINTECH	Fintech; an independent company operating in Spain and Mexico, providing instant financing services for online purchases.	<= 50 employees	9 – including a trade union representative
FR-ONLINE	An online bank (i.e. a ‘Pure player’). A wholly owned subsidiary of a large French commercial bank 2 sites in France.	501-2.500 employees in France	5 (3*) – 1 HR manager + 2 union representatives, one on each site. No acceptance for further interviews.
FR-COMMERCIAL	Commercial bank, operating world-wide.	> 2.500 employees in France ~ 2.000 branches in France (<>9.000 worldwide)	8 (7*) – including 3 union representatives).
FR-COOP	Cooperative/mutualist bank	> 2.500 employees in France ~ 3.000 branches in France	12 – including 1 union representative and 7 employees in a local branch

* (number of interviewed persons in a few cases lower, because some respondents were interviewed several times)

Source: Compilation based on case study reports (RegioPlus 2017a, 2017b; Perez 2017a, 2017b, 2017c)

Two big ‘traditional’ commercial banks participated, one in Spain and one in France. Both are the most representative of commercial banks in their respective country, while also operating worldwide.

Commercial banks are at the core of the circulation of money in capitalist economy. In France, the banking industry is quite concentrated; six banking networks manage over 80% of the approximately 12 million current accounts, throughout the country. Commercial banks accounted for 60% of employees in the banking sector in France, and 42% in Spain in 2009 (OECD, 2011). The banks we chose belong to these major groups.

Since the deregulation of banking and financial activities in the 1980s in Europe, French banking groups have been able to expand into all businesses, including retail banking (with nearly 70% of all employees), corporate and investment banking and asset management.²⁴ In Spain, in line with the structure of services provided, almost three-quarters of banks are holding companies (34%) or provide other financial services (39.3%), corresponding to collective investment funds and similar financial entities (13.8%), and financial intermediation (12.9%), although these are characterised by their larger size (RegioPlus Consulting, 2016). As we said above, we have focused on retail banking activities which involve “the management of large volumes of low-value transaction services such as accepting deposits, transferring funds, issuing cheques and drafts, providing safe-deposit facilities, lending money and acting as trustees.” (Consoli, 2005).

In these two cases, interviews sought to illustrate: the way these banks have adapted their organisational structures to implement digitisation; the business strategies underlying these organisational choices; and the main occupations that have changed in retail banking in this context, etc.

One ‘mutual’ banking network in the project recalls that cooperative banks are banking institutions which were initially created in the 19th century to serve local business communities by providing financial support at a cheaper cost than commercial banks (for small firms, farmers and consumers). Cooperative banks are much more decentralised than their commercial counterparts. Owned by their customers, they follow the cooperative principle of one person, one vote. Also, members of local branches (clients, employees) vote and select their own boards of directors that manage their own operations (even if most strategic decisions require approval from a central office).²⁵ We thought it was interesting to select one cooperative bank to test if such a bank (whose

²⁴ The concept of ‘universal banking’ was challenged after the subprime mortgage crisis. Indeed, in France, the Law of 26th July 2013 obliged banking groups to separate their deposit activities from speculative trading, by creating distinct subsidiaries. In the end, this Law has not been fully implemented, probably because of a lack of political will.

²⁵ Moreover, in the French context, if all banks have belonged to the National Federation of Banks (*Fédération bancaire française*) since 2002, ‘commercial banks’ have their own collective agreement and share an employers’ representative body: the ‘*Association française des banques*’ (AFB). The AFB produces statistics and analysis through its monitoring Observatory concerning professions and

users are its owners) makes different organisational choices when faced with digitisation compared a traditional commercial bank.²⁶ In addition, we had the opportunity to look at an experiment in such a retail banking network, based on the implementation of a cognitive solution (derived from artificial intelligence) designed by IBM and named Watson. As one of the biggest branches accepted to test this cognitive solution before its implementation in the whole network, and we were able to meet several people involved in this experiment (managers and bank advisors) and question them about the likely changes that this new tool would have on the content of their work and on employment.

Moreover, we selected **two emblematic players** in banking innovation: a (Spanish) Fintech firm (i.e. a start-up in financial activities), and a (French) ‘pure player’ (an online bank).

The **Fintech** firm is a limited independent company whose geographical area of influence is Spain but which is now undergoing a process of internationalisation with plans for expansion in Mexico. Launched in 2014, it consists of an instant financing service for online purchases, offering a system that combines an instalment payment method with very competitive prices, and marketing tools that enable financing to be used as a promotional lever for stores.

For the **online bank**, it is interesting to note it started-up in the 1990s already and then grew through a succession of mergers and acquisitions, before being bought in turn a few years ago by one of France’s largest commercial banks. Nowadays, this online bank is one of the leaders in the French market with more than 900,000 clients.

On the whole, about 40 interviews were carried out, mainly during the second semester of 2016 and the first semester of 2017; all of them have been recorded and transcribed.

It is important to stress that the aim here is not to compare the French and Spanish situations.²⁷ Instead, it is to highlight relationships between innovations and job quality in different institutional contexts and for different kinds of actors. The aim is more about opening the ‘black box’ to disentangle some basic mechanisms underlying the interactions between innovation and job quality, as a complement to expert information that can provide a more general overview. A key

qualifications within its perimeter. At the same time, each mutualist bank has its own collective agreement. In 2013, 45% of employees in the French banking sector worked in cooperative banks. The trend is flat for mutual banks, and slightly decreasing for commercial ones, suggesting that the former have been able to withstand better the US subprime mortgage fallout (see www.economist.com/node/15331269).

²⁶ According to Corrocher (2002), the corporate governance of a bank (i.e. either a commercial bank, a savings bank or a cooperative bank) is relevant in explaining the speed and intensity of adoption of Internet banking. Indeed she found that “cooperative banks are not very inclined to adopt Internet banking because their activity is very much concentrated on basic financial transactions – loans and deposits – and because they usually have a small and local customer base” (p.25).

²⁷ Unlike, for instance, Dietsch and Lozano-Vivas (2000) who compare the French and Spanish banking industries in terms of their respective cost-efficiencies.

idea has also been that the interactions studied were not universal mechanisms, but embedded in given organisations, which were themselves embedded in specific institutional contexts.

3 Innovation Dynamics in Retail Banking

3.1 A historically innovative industry

According to Eurostat, if we exclude the particular case of ‘scientific research and development’, then ‘financial and insurance’ activities are one of the most innovative activities among services, together with ‘telecommunications and IT’. This is particularly so for organisational and technological innovations (Gautié and Perez, 2015).

Nor is it new. Indeed, the banking sector has experienced a longstanding process of innovation since computerisation in the 1960s. According to Consoli (2005), who studied the evolution of the British retail banking system starting from the late 1800s, three “micro-paradigms”²⁸ characterise the key transformations that have challenged the structure of banking.

The first one was the transition from electric to electronic communications between the late 1800s and the mid-1950s. “In this context, the implementation of inventions such as the telegraph, the typewriter and the punch-card machine provided a key impulse for the development of new procedures in the management of transactions and information” (Consoli, 2005). The growing importance of information management brought two changes in the organisation of banking. A greater division of labour with the emergence, at the branch level, of new occupations like typists and clerks, which stimulated employment; and, at the corporate level, a better coordination of branches with the central offices with several layers of hierarchy. At the industry level, this phase corresponds to a relative concentration of banks through mergers and acquisitions, and to the expansion of branch networks.

The second phase was the transition from processors to databases from the mid-1950s to the 1980s. Until the 1970s, the use of computers and processors in banking was mainly limited to back-office procedures and to support the expansion of the branch networks with the growing customer bases. When the competitive environment changed during the 1970s, banks started to exploit further the benefits of automation. “The real turning point (...) was taking technologies outside the physical premises of banks” (Consoli, 2005), with the diffusion of Automated Teller Machines (ATMs) or cash points, together with the use of credit cards. Consoli notes that the introduction of the early cash dispenser was complemented by the adoption of Saturday closure for branches, in order to save labour costs. Moreover, he qualified the ATM as a “killer application” because of the large and strategic consequences ATMs had on the industry: challenges to service provision, the development of parallel markets for complementary applications, opportunities for consumers to carry out “free-from-branch transactions”, intra- and inter-firm coordination.

²⁸ Consoli refers to “a pattern of solutions to technological problems based on principles and technologies that are embedded in specific context”. Beyond ICT that have been the dominant paradigm in this industry, Consoli points out the role of “micro-paradigms” that emerged within this process.

According to Consoli, the last phase he has observed in retail banking since the 1980s concerns “the proliferation of the service delivery channels building on the experience of ATM; (...) banking anytime, anywhere”. To compensate for the huge investments that computerisation required, banks have maintained their networks to provide services on a large scale, at least in an initial phase. With the new competitive landscape (i.e. regulatory change), financial institutions tried to reduce their costs; rather than expand their structure by employing system managers, programmers and so on, they looked outside the banking sector to find the expertise needed. Moreover, the spread of ATMs in public places (other than bank premises), their enrichment with new functionalities, etc. have gradually led to customer disaffection with branches and confirmed that access to banking services no longer necessarily passes through branches. In other words, “over the last decade the principle that access to service should be independent from the physical location of the financial institutions has become the engine of evolution of retail banking” (Consoli, 2005).

Therefore, the diversification of channels for the delivery of financial services has been driven/boosted by the dissemination of ATM and of plastic cards (credit and debit cards) that have allowed electronic payment (to the detriment of cheques) and remote services in a secure framework for transactions.

At the time Consoli wrote his paper (at the beginning of 2000s), he concluded that “the future of retail banking seems channelled towards an increasing use of Internet-based transactions”. This is our next point.

3.2 Recent trends of innovation: digitisation and Artificial Intelligence

3.2.1 Digital banking and the development of online banks

A dramatic change in customer behaviour

According to all our interviewees, huge transformations have been occurring in the banking sector over the last decade and the main driver by far is digitisation. As the French Observatory of Occupations and Skills in the banking sector has reported, “Digitisation is an imperative for business” that needs to be “connected, smart, agile and social” (Béziade and Assayad, 2014).

Digitisation refers to the growing phenomenon of integration of digital technology in everyday life. Modern communication channels such as the Internet, mobile phones, tablets and social networks are now widely used by bank customers. For instance, in the case of SP-COMMERCIAL, the number of digital customers increased by 20% from December 2015 to December 2016, and the number of mobile customers by 38% for the same period (RegioPlus Consulting, 2017a).

According to the findings of the 2016 ‘Survey on [ICT](#) usage in households and by individuals’ conducted by Eurostat, 85 % of European households had access to the Internet from home in 2016. On average, 59 % of European Internet users are using online services of Internet banking. Only 44 % of younger Internet users performed some kind of electronic transactions with a bank (for payment, transfers, etc. or for looking up account information), compared to 55 % aged 55-74, and 65 % aged 25-54.

Internet habits vary significantly according to country and age groups.²⁹ Respectively 76% and 82% of households in Spain and France used Internet at least once a week in 2016 (79% in EU-28); the frequent use of Internet is higher for the young (16-24) and for persons with a high level of education. Not all customers are therefore attracted to digitisation in the same way and some are more enabled to organise and control their finances in a more autonomous way. On the other hand, some customers refuse to or cannot switch to digital use (in rural areas for instance, or among the oldest customers). Banks thus have to deal with the different capabilities of customers, adapting their products and interfaces for more remote and automated services. Moreover, technology makes it easy to learn about products and services, and many clients require fast and timely access to information. As a result, the needs and expectations addressed to bank advisors have also changed. They are more informed, more demanding too, and more volatile.

As shown in the analysis of SP-COMMERCIAL, this process of changing towards digital banking has arisen with the evolution of customer types. Currently, demand is oriented towards digital products which facilitate connection between the clients and their bank and which offer services that are easy, comfortable and rapid to use. The offices have historically been the channel for getting to know people and working with them. Today, the customers decide how and when they want to approach the bank and choose what best fits their needs for each moment and situation, whether this is through Internet banking, mobile banking and its applications, or even through smart TVs (RegioPlus Consulting, 2017a).

The implications for the banking sector are substantial (see also Béziade and Assad 2014). Innovations triggered by digitisation encompass

- *Product innovations*:³⁰ they include various Application Programming Interfaces (API), software and mobile applications (such as Personal Finance Apps). Financial products have to be simple to understand and to be put online.
- *Marketing innovations*:³¹ as banks are adopting a ‘customer-focused’ approach, these innovations rely on data analysis in order to optimise the ‘customer experience’: CRM (Customer Relationship Management), PRM (Prospect Relationship Management), DMP (Data Management Platform). Banks also try to promote their brand more effectively through social networks.

²⁹ In 2016, respectively 17% and 10% of households in Spain and France had never used Internet (14% in Europe Union-28). Source: http://ec.europa.eu/eurostat/statistics-explained/index.php/Internet_access_and_use_statistics_-_households_and_individuals.

³⁰ A product innovation is the introduction of a good or service that is new or significantly improved with respect to its characteristics or intended uses. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics (OECD 2005, p.48).

³¹ A marketing innovation is the implementation of a new marketing method involving significant changes in product design or packaging, product placement, promotion or pricing (OECD 2005, p.49).

- *Process innovation*:³² delivering remote banking services is itself a process innovation. Automation of banking processes allows procedures to be shortened and simplified, to save time for some occupations such as customer advisors; and to improve controls in order to meet legal and regulatory requirements. Virtualisation allows processing time, back office tasks to be reduced, and the tracking of processing (electronic signature, etc.) to be improved.
- *Organisational innovations*:³³ aim to cope with the growing delivery of remote services; the “resizing” of physical banking networks (branches) as the partnerships between banks and Fintech establishments can be considered as such an innovation. Choosing to create an online service as a subsidiary or as an internal unit of the company is another kind of organisational innovation.

3.2.2 Testing the introduction of cognitive solutions on a retail banking network: the French cooperative bank example

Artificial Intelligence (AI) is spreading to all industries and in many activities, including law and surgery etc. In the banking industry, the Royal Bank of Scotland and City Group were pioneers using cognitive solutions to deliver banking services.

Marvin Minsky, a mathematician and computer scientist, is considered as “the father” of AI since his seminal book, “The Society of Mind” published in 1985.³⁴ Among developers of AI, IBM is one of the leaders through its Watson system, a cognitive solution that encompasses several programs and applications such as conversation (“build and deploy chatbots and virtual agents across a variety of channels (...) and even robots”, or natural language understanding (“analyse text or extract meta-data (...)).³⁵ Because this fascinating technology can mimic human behaviours (for instance conversation) in real time, the effects on employment are feared particularly (France Stratégie, 2017). Many press articles have echoed this fear with impressive titles such as “A major British bank decides to advise its clients with a robot”,³⁶ or “When robots replace the employees of finance”.³⁷

In France, the first commercial use of Watson by a financial institution to assist its professionals occurred in 2016 in a mutual bank, FR-COOP (Perez, 2017c). According to the Chairman’s message to its employees “*The Watson project (...) is a system that recognises natural language and will enable account managers to serve customers more effectively by providing faster answers to their*

³² A process innovation is the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software (OECD 2005, p.49).

³³ An organisational innovation is the implementation of a new organisational method in a firm’s business practices, workplace organisation or external relations (OECD 2005, p.51).

³⁴ Source: <http://news.mit.edu/2016/marvin-minsky-obituary-0125>

³⁵ Source: <https://www.ibm.com/watson/>

³⁶ Source: <http://www.lopinion.fr/edition/economie/grande-banque-britannique-decide-conseiller-clients-robot-98929>

³⁷ Source: https://www.lesechos.fr/18/11/2016/LesEchos/22321-042-ECH_quand-les-robots-remplacent-les-salaries-de-la-finance.htm

questions. It is not a job-killing robot, but a technology that improves customer relationship quality.”

Watson was tested for one year with 150 client advisors in 20 branches. Our interviews were located in one of these branches where we met the director and eight employees, mainly customer advisers. Another director, a representative of the trade union SNB (Syndicat National de la Banque et du credit) at a group level shared his thoughts with us. We also interviewed the project manager, and the HR manager at the Group level.

Interestingly, testing this tool was not a request by the bank, nor that of workers (as an answer to problems that employees had expressed). It followed a top-down decision, initiated by IBM itself. As the project manager said,

“Usually, in the network, one starts from the needs expressed by the network and one seeks solutions. In this case, it was done totally inversely. It was a partner of the group, IBM, which came in the first half year of 2015 with a mature technology, wanting one of its customers, namely us, to have this technology at our disposal in French” (Project Manager, in charge of the implementation of Watson, FR-COOP).

Two cognitive solutions were tested, to begin with:

- An E-mail Analyser: Clients write to customer advisors; then, *“the department must be able to understand the intention, in whatever way the customer expresses it, within a list of 30 most recurring intentions. These 30 intentions represent 80% of our customer requests”* (Project Manager, FR-COOP). As they are not all value-added (modifying an appointment, filing an opposition a credit card, etc.), once the intention has been detected, the idea is to equip customer advisors with the link to the application in the mail, which allows the client request to be processed, and to provide answers for the customer advisor in order to respond more quickly to the customer.
- A “Virtual Assistant”: The virtual assistant is installed on the customer advisors’ workstation; rather than fetching in their database with keywords and wasting time searching for information in paper documents, the virtual assistant types the question in natural language, not as an expert but as a generalist writing. *“On the email analyser, the maximum rate of recognition of intentions will be 75%. This is the same rate as for a human. On the other hand, the drop-out rate is reduced by two. Our customer advisors searching in (our data bases) get tired at one point. The correct response rate was increased by 50%.”* (Project Manager, FR-COOP).

How did union representatives and employees react to this experimentation?

On the basis of press information about AI, the first reaction of the unions was fear. *“International studies warn that the AI and new cognitive technologies will put hundreds of millions of employees out of work. How many in our company?”* a leaflet by the CFDT union asked in FR-COOP. Rapidly, union representatives in work councils asked for an independent expertise to assess the potential impact of Watson on employment. The idea, shared by all unions in the company, is not to oppose technological development but to be aware of the consequences on the working environment and

on employment. As an SNB trade union representative said *“We are all convinced that there will be consequences for employment. At the SNB we are smart enough to say that we cannot go against progress. On the other hand, it is necessary to accompany the ensuing employment problems. (SNB representative and Director of a local branch, FR-COOP, quoted after Perez 2017c). What will Watson do to workers? As the CFDT leaflet said: “The system intervenes in our place: what will we do? What will be our leeway?”*

The project manager said that IBM had “very aggressive communication on the subject”; but after having actually used Watson, *“we are certain here that there is no capacity for intelligence, no creativity, no capacity for summarising information, even if it is a network of neurons: there is input and output. We are far from AI”*. This reassuring remark is based on current applications of Watson and fits with what the workers we met think about Watson. *“I do not have any concerns. I know the tool is not going to replace our work. It does not know our clients. We know them. That is our strength”* (Customer advisor 2, 15 years of seniority, FR-COOP).

But the relevant question, which the expertise also raised, is: what next?

3.3 Strategies that foster innovation

3.3.1 The emergence of new actors

Digital technologies have facilitated the entry of new entrants into the market, such as agency-free banks (online banks or ‘pure players’) and independent payment or investment (savings) providers that have already penetrated the retail banking market in certain segments (see Box 1). Among them, ‘Fintech’ operators are emblematic of innovation in this industry.

‘Fintech’ (this term is used by all actors in the banking industry) means Financial Technology used to provide financial services via software. Fintech companies are usually start-ups that represent the R&D function of financial services (banking, insurance, investment, asset management, etc.) in the ‘digital age’.

“For many Fintech firms, the true innovation comes not from technology but from uses. They are in breach of the integrated system of production and distribution of products that characterises banks. They have succeeded in imposing themselves by placing the users at the centre of the services they offer. The customer's path is under-optimised by the banks, which often remain locked in a product-centric model rather than a ‘customer-oriented model.’” [i.e., built on the evolution of customer needs] (quoted in Bpifrance, 2016).

Box 1: The ‘Compte Nickel’ as a success story told by one of its designers and producers

Hugues Le Bret was the CEO of Boursorama, a digital bank subsidiary of Société Générale (SG) and is currently an adviser in communication and strategic issues. He was fired by Société Générale in 2010 after writing a book about the scandal that involved a trader, Jérôme Kerviel, whose inconsistent trading lost SG €4.6 billion, and for which Kerviel was convicted in 2014. Le Bret argued that the financial system itself was dangerous and needed more regulation.

After his departure, he met Ryad Boulanouar, a creative engineer, fond of electronics and technology, a “geek”. He had had several jobs in which he developed processes like automatic machines in railway stations to buy and exchange tickets, on-line payment systems for few companies, etc. He created the Ingevoucher solution, a “global leader in payment and cash collection networks” (a pre-paid payment card), currently used by the mobile phone operators all over the world. His parents emigrated from Algeria in the 1960s; his father died when he was a teenager. His mother went through hard times with three children and little money. That period of his life gave him the idea of opening access to a ‘banking account’ without any bank, allowing the poorest (and those who cannot have a bank account anymore like indebted people) to acquire easy access to a method of payment. His idea was to equip tobacco sellers³⁸ with a device for providing a digital wallet with a ‘bank identification number’ and a payment card. To do this, an agreement of from France’s regulator was necessary (the ACPR, or *autorité de contrôle prudentiel*). Looking for contacts in the banking system, he met Le Bret who decided to use his relationships to develop this project initially labelled ‘NOBANK’.

The story shows how it was difficult (even impossible) to convince major banking groups to invest in this project. Indeed, major banks required too many guarantees and did not want to take any risks. Conversely, smaller financial establishments managed by their own founders³⁹ were more familiar with innovative projects and accepted to get involved in NOBANK (though they did ask for an alternative name that was less ‘pejorative’). (Source: Le Bret 2013).

Lastly, the company behind the success of Nickel Account and its 540,000 accounts, announced that BNP had acquired 95% of its capital, for an undisclosed amount, which could well have exceed €200 million, according to *Le Monde*, i.e. 10 times the turnover achieved last year. For the time being, the management team, which created the success of this ‘neobank’ with its status as a payment institution (which does not offer credit), remains in place. The team includes notably the co-founders, the engineer of the subscription terminal, Ryad Boulanouar as honorary president, and Hugues Le Bret, as president and ambassador (Source: <http://www.latribune.fr/entreprises-finance/banques-finance/bnp-rachete-la-success-story-compte-nickel-678661.html>).

Digitisation represents a challenge for traditional banking networks which are trying to seduce customers with new products such as new payments’ devices. To develop such innovations, banking groups have tried to launch new partnerships with IT companies that are seen as

³⁸ In France, there are 28,000 tobacco sellers that receive around 13 million customers every day. They sell various products alongside tobacco, such as scratch loto tickets of the State gaming enterprise (*Française des jeux*), tax stamps, etc. These tobacco sales outlets collect around €20 billion per year for the State (currently equivalent to one third of France’s annual interest payments on national debt).

competitors in the short or medium term; because, as the Head of the French ‘Observatoire des métiers de la banque’ put it: *“New competitors are not banks anymore (...). ICT firms like Orange are serious competitors (...)”* (quoted after Perez, 2016).

Two types of partnerships are of interest. The first one is often mentioned by interviewees and concerns partnerships with GAFA (Google, Apple, Facebook, Amazon) but nothing is precisely defined.⁴⁰ The second is more visible and involves Fintech.

“The ‘Big Six’ (French banks) were not interested in these small firms until the past 2-3 years, when they realised that Fintech could become a serious competitor or hold a competitive advantage which could also be exploited by the Big Six.” (Head of the French ‘Observatoire des métiers de la banque’, quoted after Perez 2016).

On 4th May 2016, the CEO of the Fédération Bancaire Française, attended the Fintech Summit 2016 in Paris, and pleaded for win-win cooperation between banks and Fintech operators.

*“Banks consider that a partnership between the two is necessary to improve the whole financial ecosystem and to open up new opportunities: fintechs can benefit from a strong structure for developing their activities while banks can take advantage of the high reactivity of fintechs and can quickly develop new services”.*⁴¹

Each banking group has tried to develop partnerships with Fintech operators, funding some promising start-ups. They have created *ad-hoc* structures, sometimes named “Labs” (i.e. technology hubs oriented towards Fintech firms), hoping that innovations (such as new apps, robot-advisers, etc.) will be developed. For instance, FR-COMMERCIAL has recently launched a co-working space dedicated to innovation, and also a kind of awareness platform about new technology and innovations on financial matters (Perez, 2017b). Most innovations have been developed by start-ups that may be acquired as subsidiaries by a banking group. For instance, FR-ONLINE recently acquired a Fintech company that had developed Personal Financial Management Software which helps users to manage their money (Perez, 2017a).

“Why did we buy it? We have already been aggregating bank accounts since 2011. We did not buy it back to acquire a competitor, we bought it to internalise resources, know-how and skills, to save time, we internalised this resource, to go faster down the ‘road map’ (sic) of development than had been planned”. (Director of Marketing and Website, FR-ONLINE)

³⁹ Like Olivier de Montety, the current Chief Launch Officer of Compte Nickel, who has also developed several services for “light baked Fintech” (such as Fimatex, the ancestor of Boursorama, or Zebank).

⁴⁰ Source: http://www.atelier.net/trends/articles/fintech-revolution-gafa-se-veulent-allies-banques-instant_441500

⁴¹ Source: <http://www.fbf.fr/en/french-banking-sector/overview/marie-anne-barbat-layani-at-the-fintech-summit---%C2%AB-fintech-and-banks-must-work-together-%C2%BB>

In this sense, SP-COMMERCIAL possesses innovation centres all over the world that play a fundamental role in the digital transformation the Group is facing. These centres foment interaction with the innovation ecosystem, especially with entrepreneurs, start-ups and developers. In this, the objective of the bank is to be in constant contact with new ideas and talent as a source to draw on, and make headway against the challenges of the financial services industry. They also aim to create a giant web of knowledge among all centres (RegioPlus Consulting 2017a).

“The creation of a global knowledge network and the establishment of interactions with the ecosystems of the entrepreneurs of each region are priority objectives in the open innovation strategy of the bank.” (Innovation Centres & Open Innovation Director, SP-COMMERCIAL)

In Madrid, SP-COMMERCIAL has a Living Lab which showcases the main innovation projects of the bank for visitors to the centre, while it is also used as a laboratory where new products and services are tried out with real users, in a setting which recreates different scenarios of daily life. At this centre, workshops, conferences and seminars are organised around the main theme of innovation (RegioPlus Consulting, 2017a).

3.3.2 Internet banking as a substitute or complement to traditional (incumbent) banking

All banking networks have to deal with digitisation. According to the Head of the French ‘Observatoire des métiers de la banque’,

“It is very difficult to obtain precise information at the industry level because the main banks are competitors and are reluctant to explain their difficulties regarding digitisation. But different strategies are going on to adapt jobs (volume and skills) and organisations to this emerging ‘new model’.” (quoted after Perez 2016).

Nevertheless, these strategies remain unclear. According to our interviewees (as union activists at a branch level and employees themselves), top management of their organisation has no idea of the strategy that would be necessary to cope with this “digital revolution”. According to a CGT representative at the industry level

“Our feeling is that nobody knows exactly what will be or should be retail banking tomorrow. There is no real strategy. Competitors quickly imitate the first group that makes a decision. It is more a question of image than of strategy.” (Trade union representative CGT, quoted after Perez 2016).

This assessment is largely shared by unions. “They don’t know where we are going...” said a Union activist for SNB, and this feeling is a cause of worry for employees in a changing environment.

While all the big banking networks elaborate and show off strategic business plans including the digital transformation,⁴² interviews with top management in several of our case studies confirmed

⁴² For instance, SP-COMMERCIAL defined a new strategy in 2015 based upon 6 priorities, which it has called the transformation of the bank: best customer experience: aiming to be the leaders in customer

this feeling of uncertainty. For instance, the HR manager of the French cooperative bank FR-COOP said (Perez 2017c):

“It is true that the trade unions were probably marked by planning, perhaps the Soviet Union, I do not know? They say to us: “you have a plan, tell us, in 5 years what you are going to do”. Listen, if we knew this, we promise you we would tell you, but we do not know. They always follow this logic somewhat, believing the company has a vision ... Of course we try to have one, but often they overestimate enormously our ability to anticipate things. That does not mean that we do not anticipate, but it has its limits.”
(HR manager, FR-COOP)

According to Arnaboldi and Claeys (2009), two main business models can be identified: “*classic banks start to cross-sell bank products via a website in order to reach new clients and diversify their distribution channels (“click and mortar”). An alternative strategy is the creation of a pure Internet bank without the support of physical branch*”. However, in practice, these two strategies are not entirely alternatives. Indeed, the large majority of traditional European banks have set up an Internet portal *and* a separate Internet bank with has its own brand and function as an independent entity. Regarding our case studies, FR-ONLINE is a ‘pure Internet bank’, but one which has functioned as an independent entity from a traditional bank since 2015. By contrast, SP-COMMERCIAL and FR-COOP have followed the first strategy (each one having an online bank but operating in a very distinct way from the traditional bank with very few interactions).⁴³ FR-COMMERCIAL stands out because it has chosen to create its online bank as a bank service (although with its own brand, its own website and, in part, its own infrastructure), rather than an independent structure.

Clients seeking mainly cheap and quick deposit accounts would probably prefer Internet banks. Hence, Internet banks may cause innovation in the banking sector, and serve as learning experience for mixed banks in terms of technology.

These organisational choices are not neutral for employment and job quality, as we will show in the next section.

To conclude this section, we note that ICT has been at the core of a process of structural change in retail banking for several decades. In this respect, digitisation is not really “disruptive” and has several strong elements of continuity with the past:

In this industry (as probably in others), the effects of ICT on employment are inseparable from:

- at a firm level: the organisational and managerial choices made by firms (technological innovations as opportunities and constraints that trigger the emergence and/or the suppression of activities, competences, etc.), are in part shaped by trends at the sectoral level.

satisfaction, driving digital sales, new business models: supported by the Fintech system, optimisation of capital allocation, leadership in efficiency and best team (RegioPlus Consulting, 2017a).

⁴³ As proof, no interviewee spontaneously addressed the subject, whether they were management, union representatives or employees.

- at an industry level: corporate governance, interaction among firms (imitation effects, uncertainty about business strategies, etc.), and regulatory bodies (that facilitate competition in the market or not; see regulations of Fintech activities).
- The effects on employment in the banking sector have always been feared (see for instance the literature on ATMs); or the Nora Minc Report in France in the late 1970s.⁴⁴

Regarding the entry of new players and the need for new expertise, ICT has yielded the changes in the boundaries and structure of retail banking. Moreover, the composition and modes of delivery of banking services have drastically changed. French and Spanish banking systems share some common features: a rather dense retail banking network (number of branches per inhabitants) and a rather late evolution of retail banking in the face of digitisation (particularly compared with the UK, Netherlands and the Nordic countries).

Let us now look at the impact on the job quality of the changes impelled by these new ICTs, opening the “black box” of several actors, including three “incumbents” (i.e. traditional banks).

4 Impact of Technological and Organisational Changes on Job Quality

As suggested above, it is largely process innovations, strongly supported and stimulated by new technologies (mainly digitisation and AI) that have impacted work activity in the banking industry in the past decade, interacting with organisational changes which have accompanied these technological advances.

Our purpose here is to analyse the impacts of such innovations on both JQ and employment, and how these impacts are mediated by organisational choices through the lens of our five case studies.

The French Observatory of Occupations and Skills in the banking sector distinguishes three main families of operations in retail banking: sales (half of the workforce), operations processing (one quarter) and support functions (such as HRM; about 20%). Within the top two occupational groups, the most frequent occupation is “customer advisor”. This occupation has been especially impacted by digitisation, which affects the content of work, the working environment and required skills (Béziade and Assayad, 2014). An important part of the interviews thus concerned this profession and the way in which the organisations have evolved it in this context (hiring requirements, internal career paths, training provision and so forth).

After considering briefly how employment has evolved at the sectoral level in both countries (Section 4.1), we will turn to the main changes regarding employment and JQ for sales forces (4.2),

⁴⁴ In France, in 1978, the President of the Republic, V. Giscard d'Estaing, commissioned a report on the computerisation of society. Directed by two senior civil servants (Simon Nora and Alain Minc), this report became a best-seller, given worries about the social repercussions of computers. Indeed, after the first oil shock and the rise in unemployment, the consequences on employment were a matter of concern, even if at the time the main consequences of information technology concerned individual freedoms more. Concerning tertiary sectors such as insurance or banking, the report predicted employment savings of 30% in the 1980s. These forecasts nuanced the image of IT as a noble, job-creating sector with high added value (Walliser, 1989).

and then for the whole industry. These changes challenge human resources managers who have to recruit and retain the relevant profiles (4.3). Regarding new players, it may be asked if job quality is somehow better within these organisations than within incumbents, and how it fosters creativity and innovation (4.4). Hence, two different strategies stem from the case study analysis: polarisation of jobs versus job enrichment, strategies for which we try to find some explanations (5). Finally, a salient feature that is common to our case studies is the worsening of working conditions (4.6).

4.1 Retail banking: a macro overview of a declining sector?

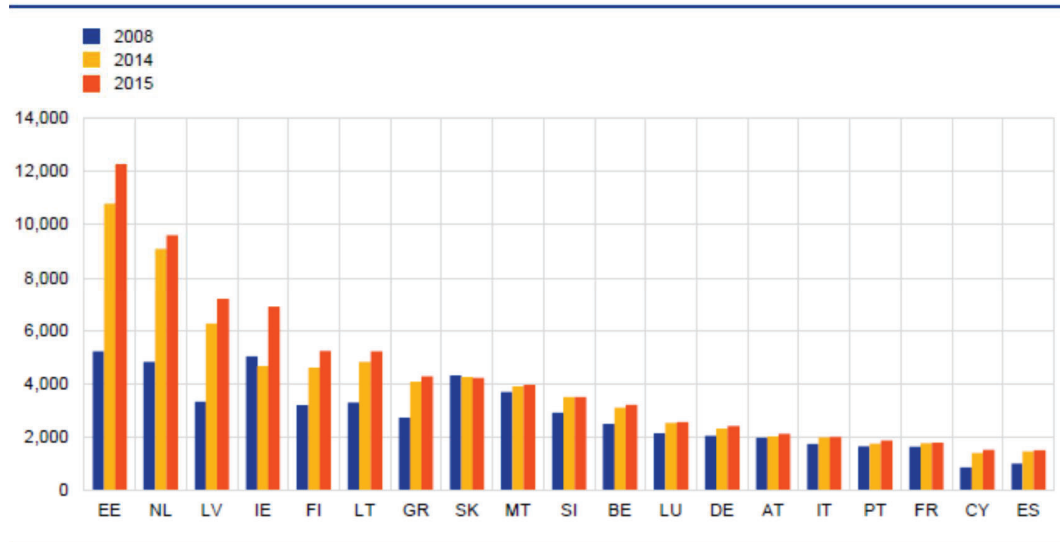
Over the last decade, job destruction occurred in the banking sector in Spain (-4% between 2008 and 2015: source Eurostat, quoted in RegioPlus Consulting, 2016) and in France (-4% from 2007 to 2014). The 2008 crisis partly explains these job losses (particularly in Spain), together with gradual changes in the business model of retail banking, which, it should be recalled, accounts for two-third of employees in the banking sector in both countries.

The resizing of the banking system after the 2008 crisis is reflected in the decline of the number of local bank units (i.e. branches) in the euro area by 17.6% over the period from 2008 to 2015. According to the European Central Bank (2016), almost half of the decrease is accounted for by Spain, but other big economies such as France also contributed significantly to this decrease.

Two indicators show both the profile and the trend of changes in the Spanish and the French banking systems between 2008 and 2015. The territorial density of the banking network is remarkably high in both countries, despite the increase of population per local branch over the period (Figure 1). The resizing of the banking networks has resulted in job destruction and, in parallel, internal reorganisations (such as passing from physical branches to e-branches or telephone platforms). Consequently, the population per bank employee has increased significantly in Spain (a little less in France), suggesting an increase in workload for the incumbents (Figure 2). Indeed, in 2015, the population per bank employee was 236 in Spain and only 163 in France (the average in the euro area being at 169), whereas the population density was similar in both countries (European Central Bank, 2016, p.27).

Figure 1: Population per local branches of banks in European Countries

Population per local branch in euro area countries in 2008, 2014 and 2015

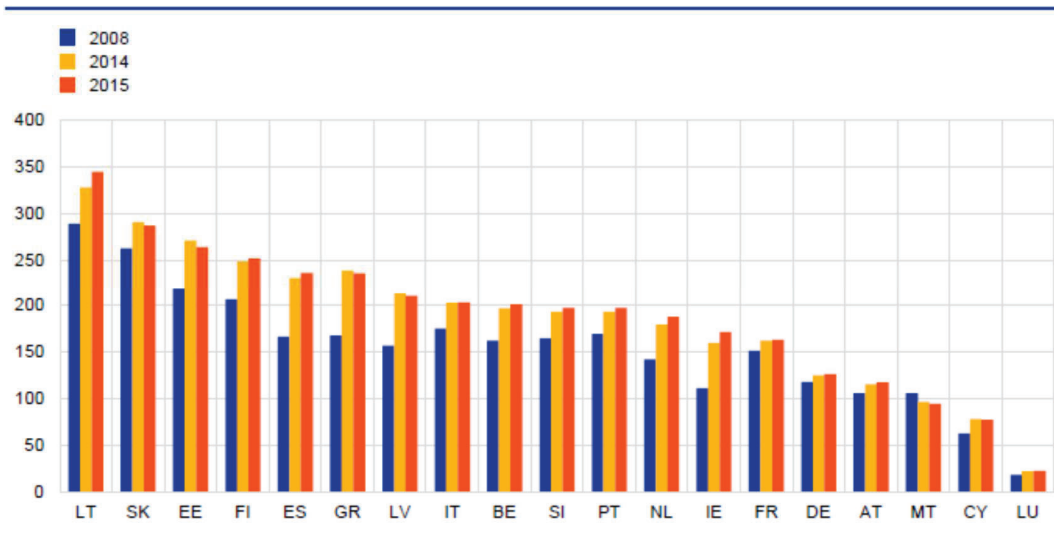


Sources: ECB (SSI statistics), Eurostat and ECB calculations.
 Note: Branches refer to the local units of credit institutions.

Source: European Central Bank, 2016: Chart 2.4

Figure 2 Population per bank employee in European Countries

Population per bank employee in euro area countries in 2008, 2014 and 2015



Sources: ECB (SSI statistics), Eurostat and ECB calculations.

Source: European Central Bank, 2016: Chart 2.5

In our case studies, all traditional banks have gained an increasing number of digital customers and some have decided to close branches and to shed some workers. At the company level, it may be difficult to evaluate the overall decrease in employment, because of merger and acquisition strategies over the same period. For instance, in SP-COMMERCIAL, there was a severe cutback in employment between 2012 and 2014 (about -10%) but after the acquisition of a regional bank, staff expanded again.

In FR-COMMERCIAL, the volume of employment (in retail) and local branches has followed the same decreasing trend since 2010 (-13% for branch closures and -6.5% for employment between 2010 and 2016). Hence, it seems that job cuts in retail banking have not been compensated by job creation in 'new' activities in connection with digital transformation. FR-COOP is the only French banking network that has not yet announced a plan to close branches, basing its strategy on maintaining a dense physical banking network favouring proximity between customers and its sales staff (Perez, 2017c).

"We believe that there is a future for a physical banking network, but that it must be associated with all the tools of remote banking, and all the possibilities of non-physical contact that the technology allows. That is the bet that we are making, which is not so simple, as it will have to find a balance in terms of cost. Indeed, we are in an activity where staff costs represent 60% of overheads, which is the choice we have made at the present time." (HR manager, Group level, FR-COOP).

Beyond job destruction, which was drastic in Spain but more progressive in France, it is necessary to open the black box in order to observe the reallocations of labour and the internal reorganisations that the macro indicators conceal or do not reveal. Indeed, process and technological innovations constitute new constraints but also new opportunities for the banking sector.

4.2 Sales forces: the main changes regarding employment and JQ

As stated above, the implementation of Internet banking has been a key strategic issue, which has led to different places and modes of work organisation (Table 2). In all cases, providing remote banking services implies new profiles of customer advisors and somehow a different type of work organisation.

Table 2: The Organisation of Customer Relationship Services in our Case Studies

	Pure player (exclusively online)	Integrated mixed strategy	“Expanded” traditional bank
SP-COMMERCIAL and FR-COOP			Customer advisers in local branch (whatever the channel)
FR-COMMERCIAL		Customer advisers in the Online Bank (OLB) Call centre contact agents (exclusively online) Customer advisers in local branch	
FR-ONLINE	Customer advisers and sales advisers (exclusively online for remote customers)		

4.2.1 Pure players: a pure external market for customer service employees

For ‘pure players’, the customer relationship is organised in two functions: a sales force (or prospects) and customer advisors. The former are responsible for answering phone calls from people wanting to become customers (or existing customers who want to open new accounts). Sales force members lead people through the different steps in the process of opening an account until it is completed. Sales advisers have performance indicators, mainly in terms of opening accounts. After opening an account, each customer is automatically assigned to a team that will follow her phone calls. Customer advisers deal with questions asked by clients by phone, chat or email. There is no performance indicator based on sales; but various indicators reflecting customer satisfaction, including response times (with different benchmarks according to the customer profiles). Both services are organised with teams (10 persons each), team managers and managers (in particular for the organisation of online activities such as scheduling and according to the category of customers).

Taken together, these two occupations account for almost half of the growing number of employees in this company. Consequently, most of recruitments (at a rate of about 100 employees per year since 2012) are for *technicians*⁴⁵ of sales transactions and customer services. They are usually recruited full-time with a permanent contract. People are rather young (under 30), having

⁴⁵ The category of ‘employee’ (clerks) was suppressed from the collective agreement of commercial banks in 2000. That reflects the increase of educational level at the entry in the banking occupations (Aubry and Dauty, 2000).

at least a two-year university undergraduate degree. Having previous job experience is not required even if an experience in sales is appreciated. It should be noted that no prerequisite in banking is required.

“This is a difference between us and a traditional retail bank: our advisers do not recommend banking products. Clients manage these themselves using the website” (HR Manager, FR-ONLINE).

The salary received by counsellors is at the low end of the range; apart from a few highly competitive occupations (see below), the situation regarding wages is the same whatever the position in the company. As a unionist said, *“the wage policy reflects the business policy: being a low-cost bank. The wage bill is under tight control”* (Trade union delegate 2, FR-ONLINE). The management highlights the profit-sharing agreement, which is said to be quite generous (around €3,000 annually per employee). One last observation should be made at this point, employee turnover seems too high in sales and customer services. If the HR manager did not want to give figures, she recognised that: *“this kind of job is not sustainable throughout a working life”* (HR manager, FR-ONLINE). The content of the job (quite limited), and time schedules (customers service is open from 8 am to 10 pm, from Monday to Saturday) are difficult to keep up with for a long time. We will return to this issue later.

4.2.2 The integrated mixed-strategy: towards a new hierarchy within customer services (and between employees)

At the time of the field work, customer services at FR-COMMERCIAL were organised as follows: Retail banking activities were covered by two units: one for online activities, the other for the physical banking network (i.e. branches with their customer advisers). Each had its own HR manager (Perez 2017b).

Within online activities, there were two main structures:⁴⁶

- the **online bank**, operating under its own brand (hereafter FR-COMMERCIAL_B); launched in 2013, with around 200 employees (mainly *customer advisors*) deployed across three sites;
- and three **Call centres** (hereafter FR-COMMERCIAL_CRC) which existed before the online bank, with 600 employees, mainly *contact agents* (working exclusively online).

There was a hierarchy in terms of job content, based on recognition expressed in wages.

At the bottom are the *call centre contact agents*. They deal with calls from customers when other units (branches or the online bank) are closed (e.g. Saturdays). Moreover, they answer to clients in case of *“overflow”* (occupied phone lines) in branches and the online bank. Nevertheless, these employees do not have the same prerogatives in terms of job content: *“the perimeter of the transaction is narrower in CRCs than in branches”* according to the Head of Sales of the online bank

⁴⁶ Another could be added: centres for specific demands (saving, insurance, real estate). Their employees are considered as ‘experts’ in a domain and able to answer requests addressed to customer advisors (and eventually directly to customers through video conference equipment).

FR-COMMERCIAL_B (Perez 2017b). They can take messages on behalf of the client and then inform the customer adviser. This work sharing creates tensions between customers and CRCs, as well as between CRC employees and “regular” advisors. Call centre agents are usually young (under 30), with a high school diploma (*baccalauréat*) or a second-year university undergraduate degree (Bac+2), with no previous job experience. As the HR manager said:

“We are looking for salespersons. Banking activities can be taught (la banque, ça s’apprend)! It is not so complicated! It can be taught (by on-the-job training).” “In call centres, they have four weeks of advanced training, with modules on customer routes, products, telephone sales, plus two weeks of ‘nursery work’ i.e. we put them into real situations, with real customers except that they have a coach, or a trainer, who is with them all the time... Then they are placed in their teams, and more training courses are planned, on bank regulation, compliance, etc. topics on which we are obliged to return to often.” (HR manager of online banking activities at FR-COMMERCIAL).

Their tenure is rather low (3 years on average); according to the HR MANAGER, this is due to particularly demanding working hours (see below).

Next in the hierarchy are *customer advisers in the online bank*. When the online bank was launched as an internal unit, the strategy of the top management was to transfer some customer advisers working in branches into this new entity. According to an SNB representative of FR-COMMERCIAL, the will to design the online bank (FR-COMMERCIAL_B) as an internal component of the bank (and not as a subsidiary) was a way to facilitate internal mobility (without employees risking the loss of fringe benefits – like the profit-sharing arrangement – which are often less favourable in subsidiaries). As such, *“it was a political and strategic choice in favour of job quality”* (Trade union delegate SNB 1, FR-COMMERCIAL). In fact, a company agreement about internal mobility within the group FR-COMMERCIAL was signed at the same time.⁴⁷

But this strategy did not succeed.

“When they (management) decided to launch the online bank (FR-COMMERCIAL_B), the first aim was to retrieve customer advisors currently working in local branches. But they could not find takers. Customer advisors were not interested in going into online banking. You should know that they may sometimes work beyond their usual hours, but they would never finish at 10 pm! So, what they (management) did, they asked to the “best” customer advisors in CRCs to join FR-COMMERCIAL_B. At this time, they sold this by saying “you will be like a customer advisor in a local branch! You will have autonomy, you will be able to manage your own customer portfolio”, but, slowly, everybody discovered it was a lie... Even the concerning bonuses!” (Trade union delegate CGT, call centre contact agent in FR-COMMERCIAL__CRC since 10 years).

⁴⁷ *“The 2013 agreement on internal mobility aimed at changing a system. Before 2013, internal mobility meant a wage increase. This was no longer true. FR-COMMERCIAL does not support geographical mobility anymore to facilitate career paths within an employment zone (bassin d’emplois)” (Trade union delegate SNB 1, FR-COMMERCIAL).*

The Head of Sales at FR-COMMERCIAL_B confirmed this statement but gave another explanation:

“We have always wanted to promote internal mobility, especially to save training costs. But, I think it has always been difficult. Why? Because in Paris, the physical network is still recruiting; the natural turnover is rather high. Then, local branches do not want to foster internal mobility towards FR-COMMERCIAL_B. That is why 90% of FR-COMMERCIAL_Bs’ hiring came from external market. This was not what was wanted. It was a requirement.” (Head of Sales, FR-COMMERCIAL_B).

As a result, management asked some call centres contact agents (those who stood out as the best performing employees) to switch to the new brand; this was considered as a promotion. Besides, they had to recruit externally young people with a two-year university degree (as a minimum) and a professional experience in banking activities broadly defined (insurance, credit, etc.), or in real estate.⁴⁸

Regarding mobility from the physical network towards online services, a quite similar situation occurred in the Spanish bank, SP-COMMERCIAL (RegioPlus Consulting, 2017a). Whereas many branches closed, the bank had created a new customer service named “The bank with you”. It involves each client having an online manager who assists her in transactions, can contract products directly through the client and then replace the manager present in the bank branches. This work is similar to that of a branch manager, but through a digital medium. In this context, younger workers of the branches were offered the possibility to become “online managers” in the “The bank with you” programme. They were redeployed in the head offices rather than in local branches. This implied that their working hours changed (from 9 am to 6 pm with a lunch break, instead of the 8 am to 3 pm schedule in branches). They received basic training and a salary supplement for the change of hours (of approximately €100 per month). The bank usually presents this change as career promotion. But the feeling of workers was mitigated. On the one hand, some of them appreciated not dealing directly with the public anymore, which had become more difficult. But on the other hand, the work schedule was worse, and they had difficulties in telephone sales. Sales targets were tough to reach. Nevertheless, in this case, it seems that workers did not have the option of refusing this internal mobility. In addition, the bank’s website offers a chat box service for customer contact, a list of commonly-encountered problems or doubts when using the website of the bank, and telephone assistance.

“We have partial telephone assistance, where each manager can deal with 1,000 people. More workers are being dedicated to this service, while office personnel is declining, though not in the same proportion. That is, if now one person can deal with 1,000 by telephone, I don't need to have five people present in the office. Nevertheless, this is not for everybody: being attended to by phone isn't the same as contact in person”. (Trade union representative, SP-COMMERCIAL).

⁴⁸ The HR manager noted that the training delivered to new recruits from online banking was less substantial than that designed for call center employees. That this would be reviewed to take into account the real profile of the people involved and not the profile initially expected.

What are the main differences in terms of job content, work organisation and finally job quality between call centre contact agents and e-advisers? In reality, there are not so many differences between the two “profiles”.

According to a study carried out for the French Observatory of Occupations and Skills in 2013 (Blanville, 2013), technical skills, know-how and soft skills expected are rather similar in both profiles. But in terms of hiring criteria, previous experience in banking activities (usually through a call centre work) is required for working as an “e-adviser”, while this is not the case in a call centre.

As said previously, the perimeter of activities (job content) is narrower in a call centre where an agent cannot be a full substitute for a customer adviser, *even if she knows the answer*. As the HR manager of FR-COMMERCIAL put it

“the customers are not theirs. They do not have business assets” (HR manager, online banking activities, FR-COMMERCIAL).

However, the organisation of work is pretty much the same in both structures (except for working time schedules; see below): as one employee at a call centre, a staff representative, noted,

“[FR-COMMERCIAL_B] remains a telephone platform. But it is only an ‘aisle head display’. When they communicate on online banking, they only talk about the brand, FR-COMMERCIAL_B”. (Trade union delegate CGT, call centre contact agent in FR-COMMERCIAL_CRC).

Most of employees are hired on permanent contracts even if temporary workers are relatively more numerous in the online bank (FR-COMMERCIAL_B) than in call centres. According to the HR MANAGER, temporary workers are used for peak activity. But for union delegates, it is instead a sign of a lack of long-term commitment to this brand (Perez, 2017b).

Basic salaries are rather similar too. Concerning the variable part of wages, until recently, call centre agents did not have performance indicators indexed to their business (sales) results. But the situation has changed and now, selling financial products seems to be the main objective.

“I have experienced the previous online banking model and the new one. In the previous one, we were not ‘objectified’ in sales matters. When a client called us because of a problem with her credit card, we just tried to help her as the best we could. We also had to call clients to suggest to them an appointment with their customer advisor, or to offer products during a marketing campaign. We had to answer some emails too. Some of us felt more comfortable with incoming calls rather than outgoing calls. But sales performance was not the main goal. Today, it is very different. It is much more aggressive. Answering to incoming calls is now the main activity. Nowadays, we know that, when a client is online, we have to attain our performance indicators. We must achieve a sales bounce (‘rebond commercial’) (...). As I said sometimes, if a client tells us that his father died, we will try to sell him something... whatever (...). We don’t talk about quality anymore. This is how online

banking has changed". (Trade union delegate CGT, call centre contact agent, 10 years of seniority, FR-COMMERCIAL).

If call centres have turned into sales centres, then, the main differences between their employees and e-advisers concerns *career opportunities* and *working conditions* (as we will see later). Finally, the biggest difference is probably between them (people working exclusively online) and customer advisers in local (physical) branches.

4.2.3 Traditional banks as 'expanded' customer advisors

In the three traditional banks that we studied, the role of customer advisors has also evolved, although in a different ways and to a different extent according to the context of the company. We shall leave the question of working conditions, which is not minor, for later.

Traditionally, a customer advisor in a local branch has *her own customer portfolio* for whom she is the main and often the only point of reference for a set of tasks (account management including overdrafts, investment, insurance, credit). The relationship between a customer adviser and her client was mainly face-to-face until recently; relationships were essentially face-to-face, which was seen as an effective way to build trust and a good knowledge of the person's needs (family, work). A last important feature of this occupation concerned *career paths* that were recognised and backed by a formal training system. This training system was managed by the sector, which acknowledged formally-acquired skills. The advisor started as an agent at the counter of the branch (i.e. a front desk officer; *agent d'accueil*), then advised individual clients (with different levels corresponding to increasing business perimeters), then professional customers (SMEs and self-employed professionals), and then possibly worked as wealth managers (*gestionnaire de patrimoine*). The profession has changed in these three areas that defined the occupational identity of a customer adviser.

First, as the work environment has changed (following the economic crisis and digital transformation), the number of branches has decreased, particularly in Spain (-10% in SP-COMMERCIAL between 2012 and 2016). According to the unions, the bank SP-COMMERCIAL avoided layoffs (RegioPlus Consulting, 2017a):⁴⁹

"Of the 132 offices closed over the last year, the posts of the managers have been eliminated. In principle they were not made redundant, they were relocated to other jobs, or retired. Their category was reduced, though not their pay as that is not permitted". (Trade union representative, SP-COMMERCIAL). The most experienced customer advisers were relocated to other branches maintaining their salaries and working hours. According to a union representative, "(P)eople are afraid and don't protest. Around the country, they've just closed 130 offices, which has given rise to a set of changes for 200 people. These changes have not taken into account where

⁴⁹ It was the same in France over the last decade, thanks to the demography that allowed what HR managers name 'natural departures' through retirement. What about recent press releases that have announced plans of branches' closures in FR-COMMERCIAL?

workers live, which could have facilitated closeness to home and made things easier” (Trade union representative, SP-COMMERCIAL).

For persons keeping their job, the average number of clients per portfolio has increased, as has the workload by the way. According to the unions

“Since digitisation started, the number of jobs has fallen. The number of people comprising the branches is very different, and there now exist offices with a single person. Offices which used to have 10 employees now have 3. Before, there was always an administrative head at the offices, but this post has been eliminated because a central company was created to deal with the administrative matters. There is a greater workload for the workers who remain” (Trade union representative, SP-COMMERCIAL).

Pressure on sales indicators has increased too within physical banking networks (in the three traditional banks that we studied here).

Secondly, customer advisors have to deal with the diversification of channels that customers use to contact them. That implies various changes in work content. Face-to-face contact is no longer predominant. Emails have become increasingly important: around 30 per day per customer advisor, 50 after weekends, 2 to 3 hours per day to treat them according our interviewees in FR-COOP (Perez 2017c).

Because “distance work takes more time than when the client is there in person! (...). So, the emails take a huge part of the working time. In addition customers expect an immediate response. We have the emails, the phone calls, the physical appointments; we have all the administrative side afterwards; we have the tasks, the daily monitoring of the customers ... we are not idle!” (Customer advisor 2, 15 years of seniority, FR-COOP).

Moreover, as some customers use on-line banking to improve their banking knowledge and competence, customer advisors are challenged in their own skills (including inter-personal skills). So “faced with increasingly-independent and autonomous customers, professional agents tend to lose certain prerogatives and a degree of power” (Dubois et al., 2011). As a customer adviser testified:

“Today we are tested by the customer. With the Internet, they have the answers before coming to the appointment, they will know if we tell the truth or if we lie. I even learn things about my trade from customers. Two weeks ago, I learned things about the 0% (home) loans that I did not know! They are highly-informed by Internet” (Customer advisor 5, 6 years of seniority, FR-COOP, quoted after Perez 2017c).

It has become more difficult to feel competent. Beyond this, the permanence of jobs is at stake. As the manager of a local branch said about customer advisers: “It's not technology that will kill them it is incompetence.”(Head of ‘caisse X’; FR-COOP).

Depending on the tools on which customer advisors may rely on, training, work organisation (in particular if work performance is assessed individually or at the branch level), etc. customer advisors may feel being in danger, threatened by a working environment or be well-equipped to face it (see below).

Thirdly, regarding job destruction in banking networks and deep changes within job contents and work organisation, career paths have been blurred. As a union representative at a Spanish bank indicated:

“There was a time when professional promotion was more agile. (Today) vacancies aren't publicised. Promotion is currently stagnating because branches are being closed, based upon the digitisation of the processes” (Trade union representative, SP-COMMERCIAL).

Despite these changes, being a customer adviser still appears as more attractive than working as a e-customer advisor (and even more for call centre contact agents) in the eyes of those concerned. There are several reasons for this because of working conditions and particularly working time schedules (discussed below), but also because of the intrinsic value customer advisors attribute to the business of customer relations: having “their” customers, the opportunity of knowing them in order to better serve them.

So, the new landscape of customer relationships in the banking sector is quite similar in both countries with the significant spread of remote services interplaying with the impact of the economic crisis on organisational choices.

Having looked at client relationships, let us now broaden our perspective to other business lines.

4.3 The need for new skills and competencies: an issue that challenges HRM

Apart from customer services, the digital transformation has brought new profiles, for specific activities such data analysis, business intelligence, web marketing, and some profiles which are very specific to the legal and regulatory changes in the banking industry. For these highly-skilled jobs, it is much more difficult to find staff, and banks and insurance companies compete with each other to attract such personnel.

For the ‘pure players’, these ‘new’ occupations account for one third of their annual recruitment. What does FR-ONLINE do to attract such ‘talent’? The HR manager answered:

“We promote our story, as a former start-up; our famous brand; our size – not too big – where it is possible to do things, etc.; and our parent company (the big retail bank) but only for some people, not all of them!”. Indeed, the HR manager pointed out that applicants in digital banking do not have the same profile as do applicants in a traditional bank. “People feel attracted by the innovative dimension of the product; they are more sensitive to digitisation, etc.; that is why there are very few moves from traditional banks to digital ones. People do not want to move” (HR manager, FR-ONLINE).

For the traditional banks, strategies are a mix of internal mobility with workers who are trained and promoted with corresponding pay rises; external recruitment via head-hunters; and the use of external providers. In case of internal mobility, managers are asked to identify “talent” among their employees and signal them to HRM. For new digital activities that constitute recent occupations, traditional banks had to make big efforts to codify the jobs they needed: this step was necessary to facilitate the work of the HR Management in the identification of the sought-after skills, in the recruitment and, finally the positioning of new recruits in the organisation, especially in terms of their pay scales.⁵⁰

It is doubtful at least *at the firm level* that job creations compensate for job destruction. As Consoli (2005) noted, “in the new competitive landscape rather than expanding their structure by employing system managers, programmers, database administrators and specialists in security, financial institutions needed to look outside the traditional boundaries of the banking firm to obtain such expertise”. In this way, these occupations seem less connected to internal labour markets than to external professional labour markets which have developed (as in the case of corporate Investment banking activities; see de Larquier and Tuchsirer 2013).

In this changing environment, HRM is challenged to recruit and retain the adequate profiles. A common feature to all our case studies is, according to the HR managers, that the traditional banking model is not adequate to the constraints of online activities (i.e. mainly demand fluctuations). Whereas retail banks are somehow archetypical of bureaucratic organisations, the key word is now ‘agility’.

As the HR manager of SP-COMMERCIAL put it

“(W)e are constantly changing our ways of working, to adapt to our customers, settings, global activities...” (HR manager, SP-COMMERCIAL).

Or, at a ‘pure player’:

“Our organisation has to stay ‘flexible’; it is important to be able to move quickly.” (HR manager, FR-ONLINE).

What does this mean for HR practices? The idea is to apply the same principles to employees as to customers: more remote services (new modes of contact with HR services, a greater use of Intranet, etc.), more flexibility (no pre-defined career paths; depending on opportunities etc.).

According to the HR manager of FR-ONLINE,

⁵⁰ For instance, FR-COMMERCIAL created reference guides (*référentiels*) for digital and data professions. In social media, the main competences are: mastering different social networking and digital levers; securing and improving the companies’ digital reputations; designing social media strategies; piloting and coordinating social media activities. Each competency is identified and then broken down at different levels: basic, advanced and expert (Perez, 2017b).

“I am not innovative myself. But I think we will have to adapt HRM to our employees (...). With our clients, we have a remote relationship, but it is extremely personalised. I think it will be the same for HRM in few years.” (HR manager, FR-ONLINE).

The HR manager of the online bank, FR-COMMERCIAL, took a similar line:

“There are no more ‘career paths’ (...). We need to change our state of mind, be more agile with employment contracts, with working time schedules. If we don’t carry out our ‘cultural revolution’ in HR policy, we will miss good profiles and we won’t be able to answer our customers’ needs appropriately. Because our candidates are our clients.” (HR manager, FR-COMMERCIAL).

In addition, she fully endorsed the need for more flexibility pretending that this fits with the wishes of younger employees: *“The younger generations no longer want to enter the Dad’s bank (banque à papa) in which one spends one’s entire career like Dad. That’s finished. It is no longer the model of the younger generations. They want to have choice”* (HR manager; FR-COMMERCIAL). According to her, large companies such as FR-COMMERCIAL are too cautious with labour regulations; *“they do not dare to try new ways of organising work”*; HR management has to move quickly to attract young talent; it is a question of image for the youngest generation, and of efficiency compared with Fintech (Perez 2017b).

According to the union representative at FR-ONLINE, there is still some way to go:

“Here, we are in an expanding market, FR-ONLINE is an innovative company but not in social matters in which we are archaic! For instance, they (top management) refuse to experiment teleworking. We have a new building, but they did not plan setting aside space for relaxing, talking, etc. FR-ONLINE innovates in terms of products and services, but remains very traditional in terms of social matters and organisation” (Trade union delegate 1, FR-ONLINE).

4.4 New players: a bed of roses?

We have already provided some insights into the organisation of work and job quality found in new players in retail banking, particularly online banking. We return here to the situation of start-ups.

4.4.1 Working in a start-up (or a former start-up)

In many respects, the start-up model is associated with the attributes of innovation: skills, creativity, and agility. It is understandable that this model fascinates large banking groups with heavy and complex infrastructures and well-structured internal markets.

Our two case studies are very illustrative of these attributes.

As a start-up, FR-ONLINE is composed of young local students in business and computing studies, who are excited by the development of a new activity: a website/portal of financial information (Perez, 2017a).

“Basically, FR-ONLINE is a pioneer; it is a technical team that has started to innovate. Each weekend, we put news on-line on our website and in the following week, the readership grew! People (employees) were enthusiastic; they always suggested improvements, new ‘streams’ to put online... This ‘pioneer spirit’ still remains in FR-ONLINE.” (Trade union delegate 2, computer engineer, hired in 19th position in the 1990s, started to be a unionist at the company’s turning point in 2002, when the two CEOs and founders decided to sell it, FR-ONLINE).

With slightly more than 10 employees, SP-FINTECH is an SME that has experienced exponential growth (the average size of Fintech firms in Spain is said to be 12). Employees are all graduates, with highly specialised training relevant to the tasks they have to perform. Technical skills at the cutting edge of the domain are the main criteria in Fintech. As indicated above, the selection criteria (like those of remuneration) are based on skills and qualifications, in short, on “talent”, regardless of the characteristics (gender, nationality and so on) (RegioPlus Consulting, 2017b).

Nevertheless, personal networks are useful vectors for attracting candidates. What an engineer and union delegate of FR-ONLINE describes matches with the idealised image of a start-up:

“the oldest were 27 years old; I was 23 at this time. We were a group of friends, doing the same studies, hired at the same time, my colleague was my room-mate, we were all (locally born) and we tried to hire (locally born people) first, for the “state of mind” (Trade union delegate 2, FR-ONLINE).

As a result, diversity is not always there. For instance in SP-FINTECH, the majority of the workers are men (over 75%), Spanish (92.9%) and do not belong to groups at risk of exclusion (100%).

As long as the structure is small, relationships may remain horizontal, even very informal (like buddies). But in our two cases, the CEO has/had clear leadership abilities even if he values the *horizontal nature* of relations between employees. Moreover, as in most micro-SMEs, workers do not have a formal trade union organisation to represent them. The horizontal working structure of the company suggests that workers could deal directly with their manager in case of labour problems, without the need for intermediation.

As one union delegate of FR-ONLINE testified:

“you are super motivated, you work, you do not feel as if you are working. You have ideas. You have the possibility to post them up on the site. If they go down well, you put them online on Saturday. If not, we rectify them, we discuss them. It's great, we search, something works, otherwise we fix it ... you have a worry, a colleague helps you. We do not count the hours we work, we come on Saturday and if there is a problem on Sunday. The (French) Labour code, we did not care about it. The unions did not care. It worked like that for two years” (Trade union delegate 2, FR-ONLINE).

Employed on permanent contracts, on a full-time basis, workers in the start-up earn salaries that are generally above the average.

"Salaries are better than the industry average, in accordance with the philosophy of the CEO, who is committed to a small team of very good and well-paid people" (Chief Marketing Officer, SP-FINTECH).

Moreover, to maintain loyalty, Fintech firms usually have incentive programs such as profit-sharing and participation devices, so that the better the company performs, the higher employee earnings are. This reinforces the feeling that workers are working for themselves without a formal boss.

Whereas in the French case, the working time schedule is unlimited with no consideration for balancing work and family life, in the Spanish case, the company has promoted elements associated with the *emotional salary* linked to the job structure: flexi-time, a flexible approach to work, options for teleworking, etc. in order to reconcile better work and family (RegioPlus Consulting, 2017b).

"The schedule flexibility is total as long as you meet the deadline: you plan the tasks you have to do. You can work in the morning or the evening, on a Monday or a Sunday." (Acquisition Marketing Officer, SP-FINTECH).

"Workers are more productive as they have the flexibility to work in their more creative moments. In this sense, they can take advantage of the hours of more concentration. However the hours have to be similar to those set out in the agreement and they have to respect the moments of workload." (Chief Marketing Officer, SP-FINTECH).

"I live in Granada and the central office is in Madrid. Thanks to teleworking, I can live in the city I want to, although sometimes communication is more difficult and only goes through ICT." (Backend Developer, SP-FINTECH).

4.4.2 Building or preserving/maintaining a working environment that fosters innovation (as the start-up grows)

As Arnaboldi and Claeys (2009) have observed, "the evidence shows the existence of some technology-specific scale effects, suggesting the need for a pure online competitor to grow larger in order to survive".

This is echoed by the following quote:

"We want to continue growing both in terms of number of e-shops (for which we provide payment services) and of users in Spain. The aim is to increase the number of e-shops with which we work and to achieve an ever increasing repetition of people who finance their purchases with (us)." (CEO, SP-FINTECH).

If these organisational conditions described above explain Fintech firms' successes, what happens when these companies grow? FR-ONLINE currently has 700 employees and is an interesting illustration of such changes (Perez, 2017a).

Whereas for one of the trade union delegates, the remains of the start-up period are mainly organisational (i.e. insufficient organisation and policy regarding mobility, training, etc.), another

delegate highlighted some continuity between the current pure player, FR-ONLINE, and the original start-up, in terms of innovation (Perez, 2017a). He pointed to three main features:

Technology monitoring: *“as web developers, we are always interested in new tools, new languages, etc.” (Trade union delegate 2, FR-ONLINE)*

Involvement/commitment: *“we don’t check time. When a project has to be delivered, everybody has to be here (that means not only those who have participated in it) from 6 pm to... whenever is necessary to get the work done. It could be 10 pm, midnight, etc.” (Trade union delegate 2, FR-ONLINE);*

Improving customers’ experience thanks to technology: *“our concern is to link technology to banking matters, more broadly, to FR-ONLINE’s activities. Our innovative spirit is thinking about improving things for customers. It is not only the prerogative of marketing!” (Trade union delegate 2, FR-ONLINE).*

In answer to the following question: “do you think you have enough leeway to be creative today?” the union delegate (and engineer in FR-ONLINE since 15 years) answered:

“That is very interesting. When we were a start-up, we would ask others what to do. We modified a webpage and then we showed the result to colleagues. Today, it is not possible anymore. We have “projects”, “missions”, with dedicated resources (number of days per person), we have to report on them each weekend... it is heavier... To pretend that we are still doing things as we used to, they (top management) have created a “project”, a kind of hours’ package to innovate, to create something you want to. This package is given to the team. But the problem is that we are always behind schedule on current projects, we usually need more time to finish them... in the end we used this time credit to finish the other projects. Defining a number of hours per project is not a good idea. It is an impediment to innovation. They should trust us and let us manage our time, let us be more autonomous. We could be more creative like that.” (Trade union delegate 2, FR-ONLINE).

Regarding HR policy, an innovative company over time is a company that gains the loyalty of its IT experts (*“It is as precious as gold”*; Trade union delegate 2, FR-ONLINE). He regrets that FR-ONLINE does not make enough effort to keep people in the company.

“I think we should try to keep these persons because we need them for the future. Hiring a new person takes time. They have to understand the environment (our state of mind), the IT system, it is a pity to waste time on this.” (Trade union delegate 2, FR-ONLINE).

He added that people are usually passionate about IT and often work at home on other personal projects. They could be tempted to move elsewhere...

4.5 A cross-case comparison: from job polarisation to job enrichment

As we said previously, technological innovations represent constraints as well as opportunities for banking companies, in a context of flat interest rates. As a top manager at FR-COMMERCIAL recognised: *“digitisation is ultimately an opportunity to reduce our costs”*. In other words, there is no technological determinism and various strategies have been implemented.

According to our case studies and to all the elements we have presented so far, two different positions (even strategies?) are noticeable. The first one leads to the polarisation of jobs, the second one seeks to enrich job content in order to upgrade employees’ skills. These two ‘models’ are presented successively. Then, some factors explaining the adoption of one or the other of the strategies are put forward.

4.5.1 Towards a polarisation of jobs

The first strategy derives from the creation of new units (external or internal) distinct from existing unit(s), and exclusively dedicated to online banking activities. These units include young customer advisors (such as call centre contact agents) who are recruited, with medium-level skills (*Bac*, *Bac+2* in French, i.e. the national high-school diploma (*Bac*) or two years undergraduate study). They are paid relatively low wages, and work exclusively online, with long opening hours (longer than in bank branches), few career prospects (fewer than their counterparts had in the physical network). It is noticeable that the HR policy does not make any effort to retain them. Relatively high staff turnover is tolerated by the organisation. Working online is considered as highly formative *per se*. It may create some opportunities that a worker, individually, can take or not. But the HR policy does not provide specific career tracks for them.⁵¹

By contrast, senior customer advisors work in physical branches with standard opening hours, selected customers, and face-to-face interactions. These positions include some ‘experts’ (in customer relations, data analysis, community managers, etc.) who are hired. They are highly skilled, and HRM makes effort to retain them.

Among customer advisers, the two spheres (online versus physical networks) are separated rather strongly. In traditional banks, the closure of branches makes mobility from the online sphere to the physical network more difficult, even if this is desired by workers. Indeed, job quality in the physical network is often envied by call centre contact agents and e-advisers. For instance, in FR-ONLINE, JQ is systematically compared to employment and working conditions offered in the parent company. Furthermore, the ‘traditional’ employment system in the retail banking sector – including vocational training, career opportunities, etc. – has been eroded by the current technological and organisational changes. But it still seems to be a “model” (i.e. a benchmark) for trade-unionists in these ‘new’ organisations.

Conversely, mobility from the physical network towards the online sphere is rare, although desired by management. For instance in FR-ONLINE, there is very little mobility from the parent firm

⁵¹ For instance in FR-ONLINE: *“there is no local and proactive policy for organizing internal occupational paths”* (Trade union delegate 1, FR-ONLINE).

towards FR-ONLINE, even though the parent firm has announced branch closures. Perhaps this a question of wages (lower in FR-ONLINE), or of image (in terms of occupational identity, working online is considered as less valuable).

On the whole, it seems that a feeling of down-skilling is shared by workers within the category of ‘customer advisers’, because of time pressure and the lack of physical contact.

Moreover, as we said previously, new high-skilled jobs created by digitisation are most often filled by new recruits (professional labour market), rather than through the internal labour market. People working in Fintech firms could be added within this category.

4.5.2 Job enrichment and skills upgrading in traditional retail banking activities

As far as we can judge from our interviews, two case studies are rather illustrative of this strategy: FR-COOP and SP-COMMERCIAL share some of the components of this strategy. Here, the main idea is to develop online services *within* the existing banking network, trying to accompany employees (particularly customer advisors) through changes in:

- New tools helping employees to handle customer communications coming through all channels (emails, phone, etc.) and passing these through a single channel,
- Training to improve their skills,
- Different work organisation.

Indeed, unlike the previous strategy, there is no (such) organisational separation between those who provide remote services and the other employees (within the physical network). Moreover, in FR-COOP, interestingly, most of the experts in IT belong to the company; the bank prides itself on doing everything (as far as possible) internally (Perez, 2017c).

“We try to find as many resources as possible internally, which is a peculiarity. There are very few consultants in our Group. Instead, we trust people in-house. And, when we want to think about forecasts or future projects, we tend to gather a group of directors, rather than call on a large Anglo-Saxon consulting firm. And I think that's one of our strengths as well. We have a lot of working group structures, including the technology professions which rely on the users. There is really a culture too, compared to that. That is to say "How do you see things?" So, we try to find the resources, the idea and the forecasts by relying on our internal knowledge base. And, since we are very decentralised, we can experiment.” (HR manager, Group level, 35 years of seniority within the Group, FR-COOP).

It is slightly different in SP-COMMERCIAL where the IT groups of the central offices have been reinforced with external professionals and in-house employees who are trained and promoted, with corresponding salary rises.

As in other retail banking networks, call centres exist in FR-COOP to receive incoming calls. However, they involve pooling means at the local level: i) they are all based in France, located close to the *caisses* (i.e. group of branches at a local level); ii) the staff of the agencies are periodically seconded to work in these units; iii) new entrants generally work in them for one year, during their

training in the profession. So they are positioned as ‘entry gates’ into the ‘physical’ banking network (i.e. the internal labour market) for all those who have been hired.

In FR-COOP, job enrichment is consistent with the objective (“*the bet*” says the HR manager) to maintain the physical network, favouring a higher quality of the service delivered through different channels (by phone, email, face-to-face interviews, etc.). This implies a HR policy that values internal mobility through substantial training.

“We have a quite specific policy at FR-COOP, probably a little different from other groups. There has been a lot of emphasis on the social protection of our employees. There is a will to retain employees. We are a group in which people pursue a career. I said I had been there for 35 years; I am an example and it is not an isolated case. The idea for us is mainly to recruit young graduates and allow them to develop a career in the group. Little use is made of recruitment of senior staff; it happens for jobs where it is indispensable; but we have a policy of internal promotion.” (HR manager, Group level, FR-COOP).

In this context, the introduction of Artificial Intelligence (AI) through Watson is presented by management as a way to alleviate workload, helping customer advisers.

“The bet we are making (...), which is perhaps original compared to other retail banks, is to say ‘we consider there is a future for a physical banking network, but that it must be associated with all the tools of remote banking, all the non-physical contact possibilities that technology allows.’ That is the challenge.” (HR manager, Group level, FR-COOP).

“Our strategy is to maintain a physical network of collaborators whom we want to be more and more expert. We have tools that can be used to achieve this objective and that they can provide more value. So there should be less and less work on simple and recurring operations, and more and more time should be devoted to customers and on expertise.” (Project Manager, FR-COOP).

According to the HR manager, this has been a longstanding HR policy within the Group and it has succeeded to go through previous substantial technological changes, such as computerisation.

“We have a commitment in relation to our employees. If we can no longer employ them in the profession for which they have been recruited, we must offer something else. (...) But at the same time, everyone understands that this message says ‘the company is ready to keep us, but we have to roll up our sleeves and eventually learn another trade’. (The previous CEO of FR-COOP) had been a pioneer in computerisation (...) There were accountants in each branch. All of a sudden, accountants were no longer needed; the machine did their work. So, we have already experienced important revolutions. At the time, he (the CEO) said, ‘We’ll give you time’. ‘You’re an accountant, well, within 3 or 4 years you’re going to become a salesperson’.” (HR manager, Group level, FR-COOP).

Training is said to be crucial in this environment. While the average training effort (measured as a percentage of the total payroll) is 3.5% in the banking sector in 2014 (Perez, 2016), FR-COOP spends annually around 6% of its total payroll in training. Relatively higher training requirements (in terms of initial training) over the past years (from *Bac* to *Bac+2* on average) have been adopted to facilitate adaptation to changes.

“So we need people with a solid level of education, a very good level of competence, so that they manage possible technological changes as calmly as possible, and we do not know exactly today what these changes will be.” (HR manager, Group level, FR-COOP).

Training is a crucial strategy in SP-COMMERCIAL too. There are two types of training at the bank (RegioPlus Consulting, 2017a). On the one hand, the permanent training offered by the Human Resources department, which is available to all workers in the bank, depending on their profile, job and needs. This training is usually offered online through the bank campus, and each worker follows it during their working hours at their own pace. There also exists the possibility of training on demand, in which a given worker or area may request specific training. These external courses are likewise organised during employees’ working hours.

Another lever of adaptability and responsiveness is based on the management style, which places particular emphasis on empowering employees at all levels of the company. Each *caisse* (group of branches at a local level) is a separate legal entity; the Head of the structure has to take many decisions including work organisation, hiring, etc.⁵² (Perez, 2017c). So 95% of decisions concerning loans are made at the *caisse* level. At the customer adviser’s level, job discretion is also recognised and is highly valued.

“Here, we are still more or less free, we still have a decision-making power that customer advisers do not have in other brands (i.e. banking networks). The decision-making power is largely at the level of the customer advisor. This is still very appreciable because we are trusted. We are trained for that too. The company does not drop us, but trains us!” (Customer advisor 2, FR-COOP).

This management policy also implies that there is no individual performance target to reach. Performance indicators are defined at the *caisse* level.

“We have team goals, the goal being to develop the caisse, each one with its specificities. Nobody sets my goal. It's up to me to sell what I want to sell.” (Customer advisor 5, FR-COOP).

“I joined this group because we do not have individual performance targets. We have targets per caisse, and we are trying to reach them all together.” (Customer advisor 3, 7 years of seniority, FR-COOP).

⁵² This autonomy at the *caisse* level was strongly confirmed by the two directors/Heads of *caisse* we met (Head of ‘caisse X and head of ‘caisse Y’ (i.e. a group of branches on a local area), FR-COOP).

According to the HR manager, this empowerment is consistent with the use of technological tools (including AI) that facilitate both a better decision-making process for employees and control tools powerful enough in order to avoid excessive risks.

The skills upgrading of front desk clerks is a good example that summarises and illustrates this strategy at a local level. While this category has disappeared in most banking networks, the Head of the *caisse* we visited decided to keep this job category. But job content has changed slightly with Watson. As Watson detects ‘intentions’ within emails, ‘simple’ requests such as making a transfer, ordering a credit card, sending a check are automatically transferred to a mail box that is managed by front desk clerks. It saves time for customer advisers. And for front desk clerks, it is more rewarding in a context where there are less customer visits to branch premises.

“It was a bit natural that it would follow. Otherwise, the customer advisers phoned us: ‘there is this, there is that’. We have direct email and we manage it directly. It is also easier for us because there are no duplicates, so no misunderstanding between the customer adviser who called us and ourselves. So we are directly connected to the customer. So it's easier”. (Front desk clerk, 8 years seniority).

4.5.3 Explaining these differences

This comparison between the case studies leads to the identification of two different strategies. So how is their adoption to be interpreted?

At a country level, it is difficult to find some overall explanation, except perhaps the severity of the economic crisis which was much stronger in Spain than in France and which reduced room for manoeuvre in company SP-COMMERCIAL, leading it to adopt new sustainable strategies.

A more relevant factor seems to be *corporate governance*, in particular for explaining the different positions of FR-COMMERCIAL and FR-COOP.

For FR-COOP, organisational and managerial choices are mainly due to the corporate governance as a cooperative bank (Perez, 2017c). This has led to maintaining physical branches as much as possible, using technology to reduce the cost of transactions that have less added-value, and skills upgrading of employees. Autonomy and job discretion were already higher than in other banking networks, and this could help, together with a trusting environment (given the HR policy of no redundancy), to absorb deep structural changes (including at the individual level with shifts in occupations and so on).

As the HR manager said

“I think that being a cooperative enterprise has a number of advantages; we do not have the pressure from shareholders. Shareholders are our customers. Clients do put pressure on us, but not on the return on capital; this is not their problem. It is an opportunity, because it gives us time in relation to our colleagues from other banks, which are listed on the stock exchange; therefore a return on investment is expected. Investors want a return on investment. We are not a charity, but we have less pressure.

So it allows us to organise ourselves. There is this aspect: there is no pressure on behalf of the holders of capital". (HR manager, Group level, FR-COOP).

This probably explains the differences with FR-COMMERCIAL, for which more than 70% of share ownership is held by European and non-European institutional investors (Perez, 2017b). At the same time, profitability is so high in this case, that organisational choices are less a matter of budget constraints than a "cultural" issue. FR-COMMERCIAL is a very top-down organisation, with a complex organisation chart. It is noteworthy that the online bank has been created alongside the usual organisation, based on a "flexible" (agile) approach, in order to speed up implementation.

"When we created FR-COMMERCIAL_B (the online brand), we created it in a bit of a vacuum. They were isolated from the rest of the organisation in order to have a pool of people who were going to work faster than in the traditional bank. There was a desire to create a start-up atmosphere with the idea that if we worked differently, it was the only way to do different things." (Top-level manager at Marketing Digital Bank, FR-COMMERCIAL, quoted after Perez 2017b).

Nevertheless, top management is very careful according to the changing context, trying to organise smooth changes to ensure competition and maintain a peaceful social climate. That is why they made the organisational choice to create an online bank as an internal entity (and not as a subsidiary), to facilitate mobility between the two spheres (the physical banking network and the online banking services). If it has failed so far, the organisation is still changing, and will probably lead to better integration of both spheres in the future.⁵³

"We have not yet decided...this is beyond my level of knowledge. But we have both models. There is a real question about how we organize advisory services. How do we serve our customers (in branches, online) and how much can we charge our customers for this service? Do we deliberately want to push people with higher value for us to local branches, and people with less value towards an online model? Or should we let the customer choose? These are all current questions for us." (Top-level manager at Marketing Digital Bank, FR-COMMERCIAL).

The puzzling case is the Spanish SP-COMMERCIAL (RegioPlus 2017a): exposed to the requirements of its shareholders (see quote from the director of innovation below), the commercial bank seems to be choosing a model of job enrichment for incumbents (customer advisors). Nevertheless, it seems that is more a "switch" from the previous (traditional) model of retail banking to a new one (mainly online banking services), but somehow based on a constant organisational structure (no

⁵³ At the time of the fieldwork, organisational changes were occurring in online banking activities with reconciliation between the online bank and the traditional network, and a clearer position for call centres. As I asked to a top manager from retail activities at FR-COMMERCIAL whether online banking activities would be merged with the traditional banking network, she answered: "Probably. We wonder if we should keep the brand FR-COMMERCIAL_B, or if we should merge both websites. Until now, we have kept the two brands in order to offer different prices. But unification aims at breaking this dichotomy (between online banking activities and traditional network) that has become less relevant" (Top-level manager, FR-COMMERCIAL).

online bank has been formally created). Consequently, it needs to be asked whether job ‘enrichment’ (i.e. skills upgrading) is really taking place, or whether jobs with new contents are being created (online transactions instead of face-to-face relations). In this case, do customer advisers believe their skills are being upgraded, or do they suffer from de-skilling (compared with their previous job content, which was mainly face-to-face)? The trade union managers claim that work quality has been lost. What are the current opportunities for upward mobility in this new context? Although SP-COMMERCIAL has made a similar organisational choice to that of FR-COOP, there are still significant differences in the management of employment and the job quality in both companies.

“Access to capital is not a problem for us, though evidently that does not mean that there are no limits. For us, the problem is not the financing, but as a listed company, we must maintain the levels of profitability necessary to satisfy the shareholders.”
(Director of innovation, SP-COMMERCIAL).

In this context companies have emerged, such as the Spanish Fintech firm SP-FINTECH. The company is an innovative business based on a combination of financial services and technology, in which the core business is grounded specifically in innovation. In accordance with the company’s own philosophy, it is a part of the Fintech revolution that finds its strength in mastery of technology and the digital world, and also in attracting talent and in values, with transparency as a central focus. The contracting policy focuses on employing the most qualified and specialised personnel available in the job market. The combination of innovation and talent means that there is a special concern for maintaining a set of high quality standards in the workplace, based on flexibility, participation, transparency and recognition.

Finally, FR-ONLINE is a former start-up that has been growing fast, trying to maintain a low-cost model (one of the cheapest suppliers in the French retail market) that gives it a competitive edge compared with traditional banks. To achieve this goal, its ability to innovate (process, products, marketing, etc.) is a key issue (Perez, 2017a). It needs the commitment of its employees, particularly the more skilled ones. Indeed, the business model requires *standardising a lot of processes* to be economically sustainable. The process of standardisation itself is demanding for employees who are involved in it.

“There are new projects all the time, some new recipe to test... Skilled employees are requested to participate in many meetings in order to improve processes” (Trade union delegate 1, FR-ONLINE).

The HR policy is rather the same for all employees, whatever their skill levels: there is no effort to retain them in order to remain ‘agile’, flexible. But, *being able to retain the appropriate employees* (web designers, webmasters) is a ‘lever’ for integrating innovation and remaining competitive. The top management, according to the union representatives, should neglect this. In this context, the parent company acts as a buffer (for the ‘low cost’ business model), offering a potential sphere of occupational mobility. One of the union delegates confirmed this, saying that

“mobility towards X (the parent) is even easier than internal mobility”; “there is no local and proactive policy for organising internal occupational paths” (Trade union delegate 1, FR-ONLINE).

A last point concerns the impact of innovation on a peculiar dimension of job quality: working conditions. A very salient feature that is *common and cross-cutting* to all our case studies, whatever the strategy that has been implemented to deliver remote services: the worsening of work conditions.

4.6 A common feature: the worsening of work conditions

Our case studies have provided much evidence that workload and work intensity have increased in retail banking, particularly in customer relationship activities. This result echoes Eurofound’s findings that labour intensity is important in this sector (Eurofound, 2014).⁵⁴

Moreover, the provision of off-premise services implies continuity of access and the possibility to interact with an operator as much as possible. Then, the scale of opening remote service provision is greater than in the branch. Hours of work are thus more constraining.

For e-banking advisers (FR-ONLINE, FR-COMMERCIAL_B, SP-COMMERCIAL and call centres), time pressure and extended working time are characteristic of their work. Indeed, their work schedule is quite unusual in the “traditional” banking sector. For instance, in the contact call centres at FR-COMMERCIAL, employees work Monday to Saturday, from 8 am to 10 pm (8 pm on Saturday). In FR-COMMERCIAL_B, work is organised in two teams: one working from 9 am to 5:30 pm and the other from 11:30 am to 8 pm. Moreover, one group of employees works from Mondays to Fridays, and another from Tuesdays to Saturdays. The scheduling is announced two months in advance. Each month, the work schedule changes. This time organisation is said to be too rigid by our interviewees. Management has tried to make it more flexible, giving opportunities to swap individual schedules in a “market”. But this still seems complicated, as customer advisors should have the same skills, no holiday leave during the period etc. The work planning function is said to be crucial for the delivery of remote services. It relies on an IT tool that knows who is logged on and when, and the duration of each work sequence. In this way, it is possible to route phone calls to the available units and, conversely, to adapt the number of employees to the flows.

Young workers in the local branches in SP-COMMERCIAL were offered the possibility to become e-advisors (digital customer advisors). This implies that their working hours change from 9 am to 6 pm, with a lunch break, instead of from the 8 am to 3 pm timetable they had before. By contrast,

⁵⁴ Following the job demand and control model by Karasek, the Eurofound study shows the likelihood of workers in banking suffering from work-related stress. Most groups of workers are found in the ‘active’ quadrant defined by jobs with a high level of work intensity AND a high level of job autonomy. But some groups are rather young (below 35) working in small- or medium- sized establishments, and women between 35 and 49 in large workplaces are in a quadrant of job strain (high level of intensity and low level of autonomy) (2014).

the online managers receive basic training and a salary supplement for the change in hours of approximately €100 per month (RegioPlus Consulting, 2017a).

The Head of Sales at FR-COMMERCIAL_B (Perez, 2017b) made an interesting comment regarding working time:

“Flexibility exists. We state in the employment contract that they have to work on the basis of 39 hours per week, for 5 days consecutively. And the allowed working time runs from 9 am to 10 pm, even if they currently work only until 8 pm. This means that, if I had to... if we would need to work until 10 pm, it would be possible according to the employment contract. It would need smooth social support to explain the decision to employees. But it is flexible.” (Head of Sales, FR-COMMERCIAL_B).

Moreover, working conditions were often mentioned by our interviewees (managers and union representatives) to explain why employees (mainly customer advisors) usually do not stay in online banking. Extending working hours, changing schedules every two months, etc. are less sustainable in the long run, with a family and young children.

“You must know that work organisation in FR-COMMERCIAL_B is very structured. Regarding autonomy, that is not... Work schedules are very strict: you must arrive at this hour, you leave at this time, you must go to lunch at this... With IT tools, management knows exactly how long you have been logged on and what you have done all the day. Perhaps people don’t want to be treated like that...” (Trade union delegate CGT, FR-COMMERCIAL).

The same assessment is made by the HR manager at FR-ONLINE, the online bank, where customer services are open from 8 am to 10 pm, Mondays to Saturdays (Perez, 2017a). The HR manager recognises that staff turnover is high in sales and customers’ services for this reason. But in FR-ONLINE, the online bank, all employees are concerned by excessive workload and time pressure. Workload is the main issue for staff representatives, and is always discussed in Safety and Health Committee meetings and assessed through several expert reports.⁵⁵ A majority of workers reported being overloaded, with detrimental consequences to their work-life balance. They reported not having enough time and resources to do their job properly (computer bugs, etc.), inappropriate performance indicators, time pressure, contradictory requests, boring tasks, etc. and insufficient recognition (bonus levels). According to a union representative, a part of these problems is linked to the rapid growth of the company, and a lack of organisation: *“we are still a start-up; and moreover, people are doing many things here. They have to be multi-skilled (polyvalent), taking on more things than in a bigger firm”* (Trade union delegate 1, FR-ONLINE).

⁵⁵ After the dramatic suicide of a manager in 2012, an independent expert report was requested by the Works Council, targeting working conditions in the company. The final report pointed out that 6 employees out of 10 said they were overloaded and some recommendations were made. Two years later (in mid-2015), a second ‘expertise’ was conducted by the same expert. He stated that the situation had improved, above all concerning communication, and teambuilding, etc. but not concerning the workload.

Currently, the Safety and Health Committee is very concerned with workload and work organisation in this company that could lead to psycho-social risks for employees. Union representatives have managed to negotiate on this issue in order to regulate the use of overtime. In 2011, a collective agreement was signed about working on Saturdays (the “Fireman plan”), followed by a collective agreement concerning working time in 2014. The follow-up of this agreement is ensured by a commission composed of three union delegates and a manager.

The role of unions towards online workers is much more difficult in FR-COMMERCIAL because there is no common representation for online workers within the company (Perez, 2017b). In two out of three sites, call centres have their own staff representatives and health and security committee. But, they do not have their own works council. In the other call centre, as in FR-COMMERCIAL_B, staff representation is merged with other services. In addition, this makes it much more difficult to raise issues that are specific to these workplaces, and to exert an influence on bargaining processes (for instance, wage bargaining is settled at the group level, not at the online bank level).

For different reasons, the situation is not better **for customer advisers in local branches**. Here, the main problems regarding working conditions are time pressure (due to multiple information flows: emails, telephone, etc.), with a workload that is much more difficult to estimate (particularly with e-mails), and under-staffing due to job destruction.

According to a union representative at FR-COMMERCIAL,

“If you talk about job quality, you must know that all these changes have a cost: the drastic reduction of staff in the last three years. The volume of employment has been reduced in retail banking but probably too much (...) Transformation of the work content itself has been misjudged. There are fewer visits in local branches, but more emails. Workload has changed and become too heavy for employees...” (Union delegate 1 SNB, FR-COMMERCIAL).

In the case of SP-COMMERCIAL, customer advisors have to work longer and this is detrimental to reconciling work and family life.⁵⁶ With respect to extension of the working day at the network of offices, the national trade union representative stated:

“extra hours are worked every day. We at the National Federation have made a call to request a system of time monitoring. Most striking is the case of the extended hours at the network of offices, as 70% of the workers work from 8 am to 3 pm, but nevertheless many of them work in the evenings” (Trade Union representative, SP-COMMERCIAL).

Concerning SP-COMMERCIAL, the union representatives noted that

⁵⁶ It was clear from the interviews that many of the employees spend more hours performing their duties than set out in their contracts. But the company was unable to estimate the number of employees (or their share in total staff) as this information is not collected (RegioPlus Consulting, 2017a).

“(T)he bank has an Equality Committee, although the work-life balance is getting steadily worse. The bank creates jobs with split shifts which constrain obtaining a good balance. Colleagues who still work the good banking hours from 8 am to 3 pm suffer constant pressure to work longer without any extra pay. They understand that those who work longer are more valued by the organisation. In addition, the HR department does not help employees to work from home” (Trade Union representative, SP-COMMERCIAL).

As some job cuts have occurred, workloads have become heavier for incumbents. The management may have misjudged the consequences of these cuts. This is the case for front desk officers that have almost disappeared in several banking networks.

As a union representative at FR-COMMERCIAL said:

“in many banks, we have suppressed the “reception” (accueil) function by saying that reception is a job for all of us. This strategic choice to remove the front desk officer has not worked as hoped. The bank completely underestimated orphan and administrative tasks that were done at the reception: scanning cheques, handling mail, a lot of things. Today we share this work, led by the director of the branch who programs half-day reception duty. But it does not work. We were expecting a positive impact on the customer relationship; we are still waiting (...). Clearly, we do not know where we are going...” (Trade union delegate SNB 1, FR-COMMERCIAL).

Another observation was made for FR-COOP (where front desk officers have mostly been kept). It has become much more difficult to assess workloads for customer advisers as much communication takes place via email (Perez, 2017c). With emails, some time-consuming questions are raised (such as insurance quotes or loan simulations). Feed-back for clients leads to a greater splitting up of work. Customer advisers may have the feeling that work never ends. As one employee said:

“There are no longer any breaks (...). Before, at the beginning of the year, we could breathe a bit, update files, be pro-active. Yet now, we just endure work, we are in continuous flow. (...) it is less rewarding.” (Customer advisor, FR-COOP).

Clients expect a quick answer to their emails. At FR-COOP, an internal “charter” (*Charte*) requires customer advisers to give an answer within 48 hours, and the manager can check if it has been done properly. Moreover, with regulatory formalism, advisers must be very careful with what they write (even more than with what they say).

For these workers, union representatives are very concerned too. But social dialogue has become tenser since 2008 in FR-COMMERCIAL, as in all French banking establishments. As a union representative said:

“wage bargaining has failed (...). The company is getting more demanding but offers less to employees” (Trade union delegate SNB 1, FR-COMMERCIAL).

Moreover, the context of branch closures makes workers reluctant to claim for better working conditions. It is particularly obvious in Spain as a union representative testified:

“although the affiliation percentage is high, the fear felt by workers in the sector means that it is difficult to get people to mobilise and to join up.” (Trade Union representative, SP-COMMERCIAL, quoted after RegioPlus 2017a).

Regarding this dimension of job quality (and in contrast to others), the situation in online banking services could appear more desirable for customer advisers than that in the physical network. As a unionist noted:

“whereas online banking was considered as a ‘pet hate’ (bête noire), nowadays, customer advisers in the physical network would like to have such an entity in their area.” (Trade union delegate SNB 2, FR-COMMERCIAL).

According to her, as employees in the physical network feel threatened by branch closures, they realise that the bank is investing in online banking which could become a more desirable working environment. Conversely, another union representative stated that:

“Pressure is lower in online banking compared to within the network, even if autonomy is less. In the physical network, it is very harsh. Today, when people are told that after a call centre, they could go to the physical network, most of them don’t want to go! The pressure is too strong.” (Trade union delegate CGT, FR-COMMERCIAL, quoted after Perez 2017b).

Not all working conditions are worsening: in this digital era, new IT skills are required to develop digitisation in the banks. In this sense, new profiles have appeared. In the case of SP-COMMERCIAL, new external IT profiles have been contracted with very good working conditions. And in SP-FINTECH, the company selects highly qualified personnel in the job market and offers salaries that are generally above the average in order to attract and maintain loyalty from talented and creative workers. To do this, highly specific interviews with a sizeable number of tests are conducted to establish the ability of individuals to meet the needs generated by a potential job.

Another aspect of working conditions relies on appropriate IT tools that can be necessary to do the job. Indeed, while digital transformation leads to organisational changes, one can ask if IT tools help, in return, in fostering working conditions.

Providing remote services requires a high-performance, reliable computer system and a user-friendly and well-nourished website. Banking networks are not equal in this respect. In France, FR-COOP is well-known for having a high performance computer system so that customer advisers feel well equipped and lucky compared to their counterparts working in other banking institutions.⁵⁷

⁵⁷ Nevertheless, at the time of the fieldwork, customer advisers had been recently equipped with tablets to make electronic signatures; none of the interviewees in FR-COOP had used it, either because they did not see its usefulness, or because it did not work when they used it. It should be said that this ‘investment’

In FR-COMMERCIAL, union representatives complained about the website (which both customers and workers do not think is clear enough), and about computer bugs that make IT work fragile in their daily activities (Perez, 2017b).

“Today, we do not have a clear vision of the future for FR-COMMERCIAL_B. I talk with many customer advisors and the feed-back is: we don’t have enough resources to work properly. Human resources, financial resources... even IT tools are inefficient. We have had many problems with computers that have been detrimental to our activity (...).”
(Trade union delegate CGT, FR-COMMERCIAL).

As an expert in digitisation at a trade union said: *“there is a huge gap between the Head of strategy and digital officers and what employees are experiencing on a daily basis: malfunctioning computer applications, erratic organisational changes”*. For him, “being digital” means *“considering employees as key players in delivering a high quality service, and not as only being a “cost-centre”*.

What about Watson? Does it help? According to the Project manager, Watson has been chosen for this purpose.

“The customer advisers complain that they have more and more regulatory pressure, more and more emails, and an increasingly wide product range. Our goal is to give them assistance tools” (Project manager, FR-COOP).

Regarding the email analyser, the idea was to save time for customer advisers by:

- identifying the request(s) – intention(s) – of the customer;
- suggesting a (written) answer according to the request/intention;
- Highlighting an application (within the Intranet) connected to the intention.

According to the customer advisers interviewed, this functionality is not really useful. At this stage of implementation, Watson recognises seven intentions out of ten which is a good score. But, so what? Most of advisors do not use the pre-formatted answers because they want to make their answer more personal. That is part of their job: creating and maintaining a privileged and personalised relationship with their clients.

For instance, *“I used to write my messages, write something personal to each customer to keep him loyal”*. (Customer advisor 3, FR-COOP), or *“I never use pre-formatted responses because I like to put things in my way, shape the emails as I want with the words I choose, even if the client may not notice”*. (Customer advisor 5, FR-COOP) (Perez, 2017c).

was made through the *Crédit d’Impôt Compétitivité Emploi* (CICE), a public measure decided in 2014 by the government in order to foster investments and job creation. Regarding the banking industry, the CICE accounted for €136 million in 2014 and €211 million in 2015 (for instance, FR-COMMERCIAL received more than €30 million in 2015). In July 2015, the SNB union (affiliated to the CGC which is historically a union for managers) called for an end to CICE funding in the banking system and for the redirection of money to SMEs. Indeed, their study concluded that there was a very large windfall effect; the CICE was paying for investments already programmed, such as the purchase of tablets (Perez, 2017b).

For the customer advisers interviewed, the most relevant tool associated with the email analyser is the ability to route the ‘basic’ messages (for instance ordering a credit card) to the front desk officer (rather than a customer adviser). But this decision is an organisational choice which has been made by the manager of the *caisse*.

Regarding the ‘virtual assistant’, comments are much more positive. Indeed, it is a substitute for a database that was judged as quite inefficient. Here, it is really a time saving tool for customer advisers because they can find much more easily the information they need. For customer advisers in small branches, it is really helpful; otherwise, they had to call a colleague working in a specific information platform. In the branch visited, the efficient tool is said to be a substitute for help they obtained from an experienced colleague. As such, this is not necessarily good news.

“It is isolating men and women who work together. Here we are lucky to have a colleague in charge of insurance. And now we are asked to go through a virtual assistant rather than spend 2 minutes in her office next door. These were opportunities for exchanges, for a break, for example to chat about a dossier and learn new things.”
(Customer advisor 3, FR-COOP).

In response to the question: “What would help you to facilitate your work?” a customer adviser replied:

“It’s not Watson that will help us. What we need here, what would help us, is to have two extra customer advisors!” (Customer advisor 2, FR-COOP, quoted after Perez 2017c).

Moreover, the ongoing process of codifying knowledge and machine learning involve professionals and is time consuming.

5 Conclusion

As the 2008 crisis has reminded us, commercial banks are at the core of the circulation of money in any capitalist economy. Thus, this industry is particularly strategic, not only for its employee headcount: around 3% of the workforce in the private sector, mainly employed in retail banking activities. In the aftermath of the 2008 crisis, the retail banking industry has faced key challenges that shape both the implementation of various innovations and the evolution of employment and job quality: new regulations, persistent low interest rates (that affect banking profitability), the changing habits of customers with mobile devices, and new competitors entering the market. In this context, banking networks have had to boost their online business to counter both low-cost internet competitors and a drop in the number of visitors to bank premises. Thus, technological and organisational innovations have been drivers of changes in employment and job quality, as have opportunistic ways to cope with external shocks.

As suggested in this chapter, work activity in the banking industry in the past decade has mainly been impacted by process innovations, strongly supported and stimulated by new technologies (mainly digitisation and AI). Process innovations interplay with organisational changes that have

accompanied these technological changes. Among work activities, the job content and work organisation of customer advisors (the main occupation in retail banking) have been particularly affected.

At the organisational level, two different strategic choices have been made. The first involves creating distinct entities to traditional banks which provide online banking services. It has led to *job polarisation*, with young employees dealing with prospection and online customers on the one hand, and fewer customer advisors for more personalised relationships with high revenue clients on the other hand.⁵⁸ The second choice is based on developing the work of customer advisors in traditional banks so that they provide these online services themselves, leading to *job enrichment*. Their work, which is taking place in a more competitive environment, has been “expanded” in terms of the skills required.

These organisational choices are not ‘frozen’ as one of our case studies suggests in particular. Banks may grope around, looking at their competitors and the evolution of the demand. Nevertheless, the first strategy appears to be used more commonly by ‘pure players’ and commercial banks. Whereas digitisation is said to require more flexibility (‘agility’ is the word in fashion), it tends to rigidify labour markets, occupational mobility between the spheres being difficult (either wished or not). Moreover, this strategy relies partly on a young workforce that accepts extended working hours, sales pressures and work which is generally rather monitored. As several interviewees told us, the banking sector has lost its appeal to young graduates since the financial crisis. As these ‘new’ jobs are ‘entry jobs’ (‘stepping stones’) into the banking sector, it may be asked whether the sector will succeed in attracting motivated graduates in the future.

Another decision is the extent to which banking activities have become standardised. A lot of activities have been progressively standardised over the last decades with digitisation, and back office as well as front office tasks have been affected. This might substitute for some tasks that are considered as “low added value”, such as subscribing a financial product or ordering a cheque book. The extent to which jobs have correlatively disappeared remains open to question. Our case studies highlight that this depends partly on organisational and managerial choice. However, our investigation tends to support previous findings according to which occupations have changed intrinsically. According to the French working conditions survey, 61% of employees in the banking sector said in 2013 that their job involves giving immediate answers to external requests, and could not be fully prescribed, compared to only 35% in 2005. So the number of jobs that could be automated has decreased in this industry over the past decade. Regarding customer advisors, we have shown that the occupation/profession) has changed; dealing with more informed, demanding and ‘fickle’ clients, customer advisors are challenged in their knowledge, know-how and interpersonal skills. Depending on the tools on which customer advisors may rely on, training activities, work organisation and management style (in particular if work performance is assessed

⁵⁸ Nevertheless, it is noteworthy that the average education level of employees in the industry has increased over the last decade: a two-year university degree has become a minimum in most cases. Therefore, the job polarisation is found rather in job content than strictly connected to skill levels.

individually or at the branch level),⁵⁹ etc. customer advisors may feel in danger, threatened by the changing work environment or well-equipped to face it. In this respect, our original analysis of the implementation of AI processes in a banking network shows that a technological innovation may be either helpful to improve the ability of employees, or be a threat or even an impediment to working properly *according to its own vision of quality of work*, and depending on the context.

A salient pattern of this changing work environment that affects job quality concerns working conditions. Time pressure and, beyond that, the long term time dimension of employment (affecting career prospects, the relative importance of seniority, etc.) run counter the creativeness and the meaning of work. However, these two dimensions are important in fostering workplaces that are conducive for innovation. As an expert in digital innovation put it, after working on “*how to work with new technologies?*”, the current challenge is “*how can the work environment foster innovation and company performance?*” (Head of Consulting and Digital strategy at an internal Lab, FR-COMMERCIAL, quoted after Perez 2017b). Such considerations are still very ‘embryonic’ (‘early’) in the companies we have investigated. Innovation is still a top down process (even an external process when a traditional bank acquires a start-up for absorbing its innovation) to which employees have to adapt to. Union representatives position themselves much further downstream, managing the consequences of innovation on employment (for instance digitisation has pushed union representatives to negotiate working time issues), rather than tackling upstream questions (how better workplaces may foster innovation) (see recent academic papers such as Chen et al. 2016). Their rather fatalistic position echoes what David Noble (2016 [1993]) described in his book *Progress without people*: “*What paralyzes us are, in particular, the concepts we have inherited, such as that of technological progress that is necessary and beneficial; and the idea that competitiveness, based on these technologies, would be the surest way to prosperity and well-being*”. In retail banking, technological innovations have created new opportunities (as new constraints too) for major changes in activities and work organisation. But the underlying question is to interpret properly what do customers want and what they are willing to pay. It seems that consequences on employment and job quality therefore depend very much on the response that management gives to this question.

⁵⁹ K. Laaser (2016) showed that performance management systems were implemented in the British banking industry in the aftermath of the financial crisis, and have worsened working conditions particularly “the moral dimension of employment (...) violating lay notions of fairness and justice”.

6 References

- Arnaboldi, F. and Claeys, P. (2009). 'Internet banking in Europe: a comparative analysis'. In L. Anderloni, D. Llewellyn, and R. Schmidt (eds.). *Financial Innovation in Retail and Corporate Banking*. Cheltenham: Edward Elgar, pp. 111-145.
- Aubry C. and Dauty, F. (2000). *Evolution de l'emploi et des qualifications dans le secteur bancaire en France*. Rapport national français phase 3. EDEX (Educational Expansion and Labour Market) Programme TSER du 4^e PCRD.
- Béziade C. and Assayad S. (2014). *L'impact du numérique sur les métiers de la banque*, Observatoire des métiers, qualifications et de l'égalité professionnelle dans la banque.
- Blanville, T. (2013). *Les métiers de la relation client à distance dans les banques*, Observatoire des métiers, qualifications et de l'égalité professionnelle dans la banque.
- Bpifrance (2016). *Disrupter la banque pour la sauver. Les Fintech, acteurs de la révolution numérique dans la finance*. BpiFrance Le lab.
- Castillo, J. (2013). 'Le système bancaire espagnol: du mirage au désastre'. *Revue d'économie financière*, 111 (3): 139-158.
- Chen, C., Chen, Y., Hsu, P-H. and Podolski, E.J. (2016). 'Be nice to your innovators: Employee treatment and corporate innovation performance'. *Journal of Corporate Finance*, 39: 78-98.
- Consoli, D. (2005). 'The dynamics of technological change in UK retail banking services: An evolutionary perspective'. *Research Policy*, 34: 461-480.
- Corrocher, N. (2002). *Does Internet banking substitute traditional banking? Empirical evidence from Italy*. CESPRI Working paper n°134.
- De Larquier, G. and Tuchsirer, C. (2013). 'Le secteur bancaire: des recrutements sous l'autorité des ressources humaines?' *La Revue de l'IREs*, 76: 71-98.
- Dietsch, M. and Lozani-Vivas, A. (2000). 'How the environment determines banking efficiency: A comparison between French and Spanish industries'. *Journal of Banking & Finance*, 24: 985-1004.
- Dubois, M., Bobillier-Chaumon, M.-E., and Retour, D. (2011). 'The impact of development of customer online banking skills on customer adviser skills'. *New Technology, Work and Employment*, 26 (2): 156-173.
- Eurofound (2014). *Banking sector: working conditions and job quality*. Information sheet. Available at: <https://www.eurofound.europa.eu/publications/information-sheet/2014/working-conditions/banking-sector-working-conditions-and-job-quality>
- European Central Bank (2016). *Report on Financial Structures*. October 2016.
- France stratégie (2017). *Anticiper les impacts économiques et sociaux de l'intelligence artificielle*. Rapport de contribution à la stratégie nationale en intelligence artificielle.
- Gautié, J. and Perez, C. (2015). *National Innovation and Job Quality Profile – France*. Report for WP6 of the QuInnE project. Unpublished manuscript.
- Le Bret, H. (2013). *NoBank*. Paris: Les Arènes.

- Laaser, K. (2016). 'If you are having a go at me, I am going to have a go at you: the changing nature of social relationships of bank work under performance management'. *Work, Employment and Society*, 30(6): 1000-1016.
- Noble, D. (2016 [1993]). *Le progrès sans le peuple. Ce que les nouvelles technologies font au travail*. Agone (original title: Progress without people. New technology, unemployment and the message of resistance. Toronto.
- Observatoire des métiers de la banque (2015). *Rapport annuel 2015*. Available at <http://www.observatoire-metiers-banque.fr>.
- OECD (2011). *2010 Bank Profitability: Financial statements of banks*.
- OECD (2005). *Oslo Manual. Guidelines for collecting and interpreting innovation data*. 3rd Edition. Paris: OECD Publishing.
- Walliser, A. (1989). 'Le rapport 'Nora-Minc'. Histoire d'un best-seller'. *Vingtième Siècle. Revue d'histoire*, 23: 35-48.

7 List of Case Study Reports and Industry Profiles

Case studies	
FR-ONLINE	Perez, C. (2017a). <i>French Pure Player</i> . Case study report for WP6 of the QuInnE project. Unpublished manuscript.
FR-COMMERCIAL	Perez, C. (2017b). <i>French Commercial Bank</i> . Case study report for WP6 of the QuInnE project. Unpublished manuscript.
FR-COOP	Perez, C. (2017c). <i>French Cooperative Bank</i> . Case study report for WP6 of the QuInnE project. Unpublished manuscript.
SP-COMMERCIAL	RegioPlus Consulting (2017a). <i>Spanish Traditional Bank</i> . Case study report for WP6 of the QuInnE project. Unpublished manuscript.
SP-FINTECH	RegioPlus Consulting (2017b). <i>Spanish Fintech</i> . Case study report for WP6 of the QuInnE project. Unpublished manuscript.
Industry Profiles	
France	Perez, C. (2016). <i>Industry profile: Banking industry – France</i> . Report for WP6 of the QuInnE project. Unpublished manuscript
Spain	RegioPlus Consulting (2016). <i>Industry Profile: Banking industry – Spain</i> , Report for WP6 of the QuInnE project. Unpublished manuscript.

8 Annex – Summaries of Case Studies

Spanish traditional Bank (RegioPlus Consulting, 2017a)

Brief characteristics of the companies' structure and business strategy

<u>Origin and type of activity</u>	One of the most representative banks in terms of its volume of business in Spain. The global financial group was founded more than 100 years ago and currently has a diversified business offering financial services to customers in more than 30 countries.
<u>Number of employees</u>	More than 10.000 workers in Spain (2016). Women make up 54% of the persons employed.

It moves in a highly competitive market which has undergone an intense transformation in Spain as a consequence of the economic crisis. This prompted the bank to define a new strategy in 2015 based upon 6 priorities, which it has called the *transformation of the bank*: best customer experience, driving digital sales, new business models: supported by the fintech system, optimisation of capital allocation, leadership in efficiency and best team.

The number of digital customers of the bank reached 19% in 2016, with an increase of 18.09% over the preceding year. Similarly, the number of customers using a mobile for different bank transactions stands at 12.4%, or 27.42% higher than one year earlier.

Important innovations in recent past

The bank possesses innovation centres all over the world which represent a fundamental role in the digital transformation which the Group is confronting. These centres foment interaction with the ecosystem of innovation, especially with entrepreneurs, startups and developers. In this, the objective of the bank is to be in constant contact with new ideas and talent as a source to draw on and make headway against the challenges of the financial industry.

The bank has been opting for digital transformation over the last decade, with a long-term strategy of closing branches, and focussing the bank on the new technologies. It allocates around 1000 million Euros per year to investment in the new technologies of the financial sector.

Key findings on interrelationships between innovation, job quality, employment and inclusiveness

One of the most notable consequences of the transition to digital banking is the smaller number of users requiring the bank's customer services at offices and branches. The most direct effect of this innovation is the closure of offices with the consequent reduction or relocation of personnel. The most senior workers in the bank branches have been relocated to other branches maintaining their salary and working hours. Younger workers are offered to become online managers. The volume of work for the office personnel has been rising following the reduction in the number of workers there. Similarly, the technology area department at central services requires more professionals to develop the new products. The new technology engenders a demand for new profiles with great expertise. These profiles, which are usually more senior, imply a different salary cost.

Spanish Fintech (RegioPlus Consulting, 2017b)**Brief characteristics of the companies' structure and business strategy**

<u>Type of activity:</u>	Financing service for online purchases that enables the two main weaknesses of e-commerce in Spain to be overcome: accessibility and price sensitivity
<u>Number of employees:</u>	The company is an SME that has undergone exponential growth over the last year or year and a half, during which it went from having less than 10 workers to more than double that number, i.e. they now employ more than 10 workers.

They offer a system that combines an instalment payment method with very competitive prices and marketing tools that enable financing to be used as a promotional lever for stores. In fact, this financing system is used by on line sellers as a marketing instrument, since it simplifies the buying process to reach more customers, maximise conversion rates and increase the value of the average order.

The company's strategy for attracting clients, considering that it is a recently created firm and is the smallest competitor in terms of volume of clients in the Spanish market, is based on the quality of the product backed by ease of access and operations: usable check-out, with experience that is also subject to continuous innovation by the company.

The contracting policy focuses on employing the most qualified and specialised personnel available in the job market.

Important innovations in recent past

Innovation is a substantial element in the origins of Fintechs. In this particular company, despite the fact that financing has long tradition in physical shops as a method of payment, the creation of the company was based on innovation that took this process to the online world by adapting the way in which a loan is granted.

The development of predictive algorithms and an “agile working methodology” come from an incremental innovation strategy, which is one that has been adopted from the start by the fintech, which has its main scope of action in areas relating to data analysis and development, and also in the study of information relating to transactions and the possibilities of financing.

Key findings on interrelationships between innovation, job quality, employment and inclusiveness

In accordance with the company's own philosophy, it is a part of the fintech revolution that finds its strength in mastery of technology and the digital world, and also in attracting talent and in values, with transparency as a central focus.

The combination of innovation and talent means that there is a special concern for maintaining a set of high quality standards in the workplace, based on flexibility, participation, transparency and recognition.

French Pure Player (Perez, 2017a)**Brief characteristics of the companies' structure and business strategy**

<u>Origin and type of activity:</u>	This company is the main French 'pure player' (online bank). Initially a start-up launched in the late 90's, this company is growing fast, either in terms of clients as of employees. Since 2015, the online bank is the wholly owned subsidiary of one of the biggest French retail banks.
<u>Number of employees:</u>	The company has recruited many employees (on a full time basis) at a rate of 100 to 150 persons per year over the past years: between 500 and 1000 persons (+24% since 2012) are employed at the time of the interviews dispatched in two sites.

Important innovations in recent past

For the company, 'innovation' means 'Being ATAWAD' (Any Time, Any Where, Any Device) but at the lowest price. To solve this problem - being successful at the lowest price -, standardisation and automation of processes are highly important. The company is always on the lock-out for systems and specific skills allowing to improve processes. For this purpose, mergers and acquisitions with start-ups are strategic. The company offers services to clients that other companies (such as traditional banks) cannot offer yet like increasing immediately your authorised overdraft by internet or "easy check" facility and so on. As a previous start-up, the company has kept several features that foster innovation: technical watch habits, sense of commitment ("*we don't look at the clock*") and improving customers' experience thanks to technology ("*not the only prerogative of marketing*").

Key findings on interrelationships between innovation, job quality, employment and inclusiveness

The way the company is innovative, through mergers and acquisitions, is a challenge for HRM and for social cohesion of the company.

The business model needs *to standardize a lot of processes* to be economically sustainable. The process of standardisation itself is demanding for employees who are involved in it; in the mid-term, the employment structure may evolve regarding the standardisation of some processes and job content may be less fruitful/rewarding. For instance, customer services tend to operate as call centers and consequently, the "advice" component of the job is quite weak.

This business model implies *dissatisfaction* with wage policy (lack of recognition) and with internal mobility, and with working conditions (particularly heavy workload). In what extent is it sustainable? Note that dissatisfaction may be (at least partially) compensated by the job opportunities given by the parent company.

Controlling the IT system and *being able to retain the appropriate employees* (web designer, webmaster) are at stake to remain innovative and competitive. The latter condition seems neglected by the top management; indeed, loyalty does not seem to be an objective for the management. It could be detrimental to innovation itself and to the company in the long term.

French Commercial Bank (Perez, 2017b)**Brief characteristics of the companies' structure and business strategy**

<u>Origin and type of activity</u>	This company belongs to a group organised around two main activities: 'Retail banking and services' and 'Corporate and Institutional banking'. It is the biggest banking network operating in France regarding its annual revenues (Net banking product). Despite Retail banking contributes with only 15% of the company's Net banking product, 77% of all employees are working in Retail banking and services.
<u>Number of employees</u>	As a whole, the group employs more than 100,000 persons all over the world, 30% being employed in France. As our case study focuses on Retail banking for the French market, it concerns considerably more than 10.000 employees in 2016.

Important innovations in recent past

Like the other French banking networks, this bank is challenged on its domestic market with a weak economic growth (and correlatively a low demand of loans/credits) and with persistent low level of interest rates. Moreover, since 2010, the number of local branches has dramatically decreased. This trend illustrates structural changes in retail banking with the changing habits of customers: less visits in the premises of the bank, more remote contacts with smart phone, tablets and so on. As a result, banks have had to adapt by offering applications making visiting more easily on the bank's website and carrying out simple operations (consulting its bank account, making a transfer, contacting its adviser etc.). Therefore, the most frequent operations were digitised. Today, a new stage is underway: digitisation of processes. With the appointment of a new Chief operating officer, a digital transformation plan was announced in 2016 with several points: "Implement new customer journeys", "Make better use of data to serve clients", "Upgrade the operational model", "Work differently". The answer is also "organisational"; the company decided to launch its own online bank as a "brand" (rather than a subsidiary).

Key findings on interrelationships between innovation, job quality, employment and inclusiveness

According to several interviewees, one of the reasons why the online bank of the company has been created as a brand (rather than a subsidiary) was to facilitate internal mobility from the 'physical' network to online banking activities in case of branches' closure. An agreement about internal mobility within the group was signed at the same period that the online bank had been launched. But management failed to recruit customer advisors in the branches. It reflects that working as a e-customer advisor (that is mainly online) is less valuable by employees than working at a local branch with face-to-face appointments and individualised relationships with customers. Moreover, work schedule in online banking activities is larger than in the "traditional" banking sector: employees work Monday to Saturday, from 8 am to 10 pm (8 pm on Saturday), which does not facilitate conciliation between work and family.

French Cooperative Bank (Perez, 2017c)**Brief characteristics of the companies' structure and business strategy**

Origin and type of activity: This company is a French cooperative bank. Initially created in the 19th century to serve local business communities by providing financial support at a cheaper cost than commercial banks, cooperative banks are much more decentralised than their commercial counterparts and are owned by their customers. This company has decided to keep local branches as much as possible whereas developing online activities.

Number of employees: More than 10.000 persons are employed by the bank in France.

Important innovations in recent past

The company has implemented a cognitive solution (derived from artificial intelligence) designed by IBM and named Watson. Two cognitive solutions were tested, to begin with: (1) an E-mail analyser: once the intention has been detected, the idea is to equip customer advisors with the link to the application in the mail, which allows the client request to be processed, and to provide answers for the customer advisor in order to respond more quickly to the customer. (2) A virtual assistant that is installed on the customer advisors' workstation; rather than fetching in their database with keywords and wasting time searching for information in paper documents, the virtual assistant types the question in natural language. As one of the biggest branches of the company accepted to test this cognitive solution before its implementation in the whole network, we were able to meet several people involved in this experiment (managers and bank advisors) and question them about the likely changes that this new tool would have on the content of their work and on employment;

Key findings on interrelationships between innovation, job quality, employment and inclusiveness

In this company, the main idea is to develop online services *within* the existing banking network, trying to accompany employees (particularly customer advisors) through changes in: i) new tools helping employees to handle customer communications coming through all channels (emails, phone, etc.) and passing these through a single channel, ii) Training to improve their skills; iii) Different work organisation.

Here, job enrichment is consistent with the objective ("*the bet*" says the HR manager) to maintain the physical network, favouring a higher quality of the service delivered through different channels (by phone, email, face-to-face interviews, etc.). This implies a HR policy that values internal mobility through substantial training. In this context, the introduction of Artificial Intelligence (AI) through Watson is presented by management as a way to alleviate workload, helping customer advisers. Another lever of adaptability and responsiveness is based on the management style, which places particular emphasis on empowering employees at all levels of the company; for instance, there is no individual performance target to reach. This empowerment is consistent with the use of technological tools (including AI) that facilitate both a better decision-making process for employees and control tools powerful enough in order to avoid excessive risks.