

UNDERSTANDING THE IMPACTS OF DIGITAL TRANSFORMATION IN THE SERVICE INDUSTRY: THE MUTATION OF THE BACK-OFFICE FUNCTION IN THE INSURANCE SECTOR

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Abstract

This paper aims to investigate how the digital transformation of the insurance sector has impacted its Back Office function, and how the evolution of the core Claims Administrator profession affects the larger service production process. Our work seeks to confront the established organizational design literature of customer interaction-based activities, with more recent literature on major contexts of service disruption, such as digital transformation and the Covid-19 pandemic. The study is founded on empirical data obtained from semi-structured interviews with Back Office practitioners from three large insurance firms based in France, which was analyzed using an inductive qualitative content methodology. The paper identifies three key results: 1) the multi-dimensional impacts of digital transformation have caused a paradigm shift for the professionals of the BO function; 2) the brutal and unforeseen nature of 2020 and 2021 nationwide Covid-19 lockdowns did not translate into specific transformations of the BO function but accelerate the pre-existing ones from digital transformation implementation (mainly, on resources and tools Management; training and structure); 3) the evolution of the BO function is marked by a shift towards a new dual customer interaction model that significantly transforms the insurance sector's service production process model.

Key words: Back Office, Digital Transformation, Customer Interaction Model, Organizational Design, Insurance Sector

CONTEXT

The actors of the service industry, particularly in financial service firms, have been undergoing a profound Digital Transformation (DT) for the better part of the last two decades. This well documented phenomenon is exogenous in origin, since it is primarily an adaptive response to external technological innovations that have come to modify the context in which service firms navigate. As these firms transitioned into 'digital business ecosystems' "*shaped by a network of interdependencies specifically generated through digital technologies*" (Kopalle, Kumar & Subramaniam, 2020; Hanelt et al., 2021), they have had to contend with an accelerated and continuous flow of technological innovations that resulted in a new business context of sustained turbulence. Such context has come to be characterized by "*conditions of unpredictability in the environment because of rapid changes in customer needs, emerging technologies, and competitive actions*" (El Sawy & Pereira, 2013; Pavlou & El Sawy, 2010). As service firms have sought to adapt to this new context, the digital transformation of their business environment has had a wide range of impacts, seemingly every level of activity, from strategic to operational concerns, as well in both core and support functions (Hanelt et al., 2021; Henriette, Feki & Boughzala, 2015; Schneider & Kokshagina, 2021).

In the case of operational service activities, it seems like most of the existing work has focused on the Front Office side, with relatively little attention given to Back Office (BO) function (Korczynski, 2004). Such realization can be surprising since the BO is generally understood as the core operational center of service firms and, therefore, crucial to maintaining lasting customer satisfaction. This is even more salient in the insurance sector, since its overall process is structured around a distinctive inverted service production process model which gives greater significance to BO activities, as opposed to other service sectors where the BO function is limited to Call Centers in charge of product support or customer care. In the insurance sector, the BO is often described as the equivalent of insurance “factories” by practitioners, and its core job is that of Claims Administrators, in charge of processing insurance claims for customers. This activity represents a large part of the workforce in these companies. As the BO employees ensure the quality of the contracted insurance service, there are both strategic and socio-political imperatives to maintaining the efficiency of BO function. Yet, the DT of the insurance sector has gradually introduced technological innovations that are automating services processes, digitalizing professional tools, and modifying the expectations of increasingly technologically proficient customers. With such high stakes to preserve efficiency and quality, insurance practitioners are faced with an important question: **how has the digital transformation of insurance firms impacted their back-office function, and how BO professionals can best adapt?**

Adding to an already transformational context, insurance firms have recently had to face the brutal and completely unexpected effects of the Covid-19 global pandemic. Like many other service sectors, insurers have had to contend with changes in how working conditions for their employees, as well as living conditions for their customers, particularly on the operational level. For many service firms, the Covid-19 pandemic resulted in sustained ‘Service Mega Disruption’ (SMD) which greatly affected business activities on the macro-, meso- and micro-level (Kabadayi, O’Connor & Tuzovic, 2020). Many of the recent work on the impacts of Covid-19 demonstrate different effects on the digital transformation strategies in service firms. A brief overview of this recent literature illustrates 3 main scenarios: 1) the validation and/or acceleration of pre-existing DT implementations (Paradkar, 2020; Tortorella et al., 2021); 2) forced changes in DT strategy (Acquila-Natale et al., 2022; Agostino, Arnaboldi & Lema, 2021; Cserháti, 2020); and 3) little or moderate on DT processes (Eckert, Eckert & Zitzmann, 2021). As we consider the key turbulences that have affected the operational activities of the insurance sector, this event provides an opportunity to see what kinds of effects, if any, the Covid-19 pandemic has had on the ongoing evolution of the BO function in the insurance sector.

LITERATURE REVIEW

To understand the extent of current challenges of BO function throughout the digitalization of their firm, the literature review will focus on the managerial stakes of former institutionalization of the Back Office function in the insurance sector. First, we will look at historical documents that help trace the evolution of the BO in services industries, its intrinsic ties with the financial services sector, and the core organizational reasonings that shaped its activities. Second, we will examine the roots of the BO structure in operational management and organizational design literature, to highlight the relative lack of work regarding its more recent transformation (when compared with the Front Office function). Third, we will focus on the contemporary specificities of service production process in the insurance sector to highlight key differences with other service sectors and present our research questions.

The historical evolution of the BO function as an organizational innovation

Historically, the expression of “Back Office” evolved from the very practical description of a physical space within a commercial activity, into a standardized layout for banking services, and ultimately grew to have a larger meaning in the financial service industry, one that describes a core organizational function of administrative operations.

At its inception, the earliest cases of the use of the “Back Office” expression can be found in the early 19th century in Europe: historical registries on the valuation of places of commerce in Dublin, Ireland provide many examples of commercial properties that are described as having a “back office” (Southampton, 1833), in addition to having a street office, or a main building with several stories. While these documents do not provide a clear definition of the term or specify the types of commercial activities for each property, its authors’ ‘Observations’ column diligently distinguish the “back offices” from other types of spaces, such as the “back house”, the “back stable” or “back workshop”. This provides a first clue as to the specific nature of this physical space. Based on practices at the time, it can be inferred that these ‘back spaces’ were usually dedicated to storing products or documents, and were used as places to prepare customer orders, as opposed to the front shop or office, which was reserved for customer interaction.

More defining elements of the Back Office emerges in the late 19th centuries, specifically in the financial banking sector. Additional historical archives, this time from the United States of America, show that local bank offices are structured according to a certain customer path and the separation of professional certain activities. One such example can be seen in a decoration proposal for a Western Bank in 1835 from the Decorator & Furnisher journal (Scheme for the Decoration of a Western Bank, 1895) : the interior decoration proposal follows a distinct decorative pattern from each room, detailing decorations and color schemes by following the client journey within the building: it first starts with the entrance Vestibule and halls, followed by the Middle Room (waiting room) and the Director’s Room. The description then proceeds to detail plans for specialized services, such as the Real Estate office and the Insurance office, where the customer would be directed depending on their needs. The proposal ends with three Back Offices, which are distinguished from two other private offices (pp85-86). While the exact activities of the Back Offices are not described, the structure of the proposal would suggest that these spaces were reserved to receive existing or long-term customers, or to store documents and contracts. Furthermore, since such proposal was published in a national monthly magazine specialized in aspects of interior decoration, it may indicate that such a layout was rather common for banking offices at the time.

A more explicit historical definition of the Back Office can be found in the financial service industry archives from the 1930s. Indeed, the history and archives blog of the banking from BNP Paribas dedicates a full article and presents several artefacts through pictures of what it calls the “Back office revolution in the 1930s” (BNP Paribas Archives, 2015). This historical work analyzed the archives from the BNCI – Banque Nationale pour le Commerce et l’Industrie (National Bank for Commerce and industry), a firm that would later merge with other French banks to become the BNP Paribas group). The documents describe the Back Office, as an organizational innovation of work that appears in the 1920s and is characterized by “*separating administrative tasks from commercial tasks*”, to help improve efficiency and the keep BNCI growing in a time of economic hardship. Heavily inspired by the principles Taylorism, the banking firm set up several regional administrative centers in the 1930s to allow “*branch staff*

to free themselves from secretarial work, accounting and filing”. Such development seems linked to technological innovations in the field of mechanographical equipment: as the administrative work required the management of several tons of paper documents every month, the BNCI sought a way to automate operational tasks pertaining to data entry and statistical calculations. Punched cards were used by data entry operators to enter the positions of accounts and cheques, etc., the advantage



Figure 1 - Accounting and Mechanical data processing room at the BNCI's custodian Center for the securities in Dinan (France), in 1939 – BNP Paribas Historical Collections

being that they could be re-used every month to calculate the payroll and conserve fixed data. [...] With card reproducing punches, it became possible to write a piece of information on several registers at a time.” (see Figure 1). It shows that the Back Office took on a new meaning, as an organizational structure in charge of administrative operations that is no longer confined to the physical “back space” of a building: indeed, Back Offices in the banking sector became relatively centralized operational centers that were physically separate from the bank’s commercial branches, and often located remotely. However, this historical analysis does note that such organization of operational activities did not seem to be a common practice before the arrival of mass computerization in the European banking systems in 1960s-1970s.

The lasting impacts of the customer contact model and bureaucratic organization on the modern definition of BO activities.

Within the academic literature, Back Office activities have systematically been defined in relation to Front Office activities (FO), on the basis of two core concepts: 1) the customer contact model and related works on interactive service processes; and 2) the principles of bureaucratic structures associated with administrative work, in the public and private sector.

Appearing in the 1970s, the concept of Customer Contact Model (CCM) (Chase, 1978, 1981; Chase & Tansik, 1983) has been highly influential in theorizing the design rationale of service delivery systems. This work, by Chase and associates, grew out of the inheritance of contingency theory and the influence of organizational design during that period, while their timing might also give further proof that the BO structure created by the BNCI was not widely disseminated before the 1970s. The CCM served to put forward a “contact-based classification scheme” service delivery structures, according to 3 key design parameters: 1) sealing off the “technical core” (production processes) from environmental influences such as customers which might disturb production rate (Thompson, 1967); 2) disaggregating the organization’s activities to its constituent parts through a classification of goals and tasks; 3) decoupling activities and placing them under difference supervision structures. According to the authors (Chase & Tansik, 1983), this approach resembled the “PWP” concept (Plant-Within-a-Plant) that was prevalent in manufacturing strategy (Skinner, 1974) at the time. According to the contact-based classification system, banks and financial services are seen as mixed

services categories, with a strict separation of the FO and BO activities, and with the BO being isolated from customer contact by the FO, (and therefore characterized as having a low-level customer contact) to ensure the efficiency of the service production process.

This idea was further refined idea has been further refined on several occasions, such as with the study of interdependency patterns between FO and BO and the “Pooled service design” typology of financial service firms (Larsson & Bowen, 1989) where *“customer contact is standardized through the use of preadjusted options (e.g., bank accounts and insurance policies), forms, programs, routines, and so forth. [...] The back office coordinates its operations through standardized pooling of customer input for mediating and large-scale purposes.”* (p228). Furthermore, the CCM has been challenged with regards to its central premise of looking at the level of “customer contact”: in light of technological innovations that were widely adopted by customers since the 1980s, such as the telephone, the customer service systems need to account for different types of “customer interactions”, which can be through points of physical contact or direct remote interaction (Mersha, 1990). However, more recent work on service delivery system design has also shown that the separation between FO and BO is much more nuanced in practice (Zomerdijk & de Vries, 2007): for one, financial services firms often incorporate mid-offices or Middle Offices (MO) as platforms that help mitigate some of the intermediary tasks that seem to resist the traditional division between FO and BO. Furthermore, *“high- and low-contact activities still make different demands on the design of facilities, staff and technology in service delivery systems.”* (Zomerdijk & de Vries, 2007).

More recently, the design of service systems has focused on the notion that the BO is a essentially a highly bureaucratic function, while questioning whether it is a novel kind of “customer-oriented bureaucracy”: since *“research and theory suggest that while the way in which this work is organized is to a significant degree underpinned by rationalization, there is also an important customer-oriented strand in the organization of front-line work. This begs the question of how work is organized in back-office service work, i.e., service jobs involving work with and for the front-line staff but in which there is no direct interface with customers. Are these jobs also organized as a ‘customer-oriented bureaucracy’ or are they subject to more straightforward bureaucratization?”* (Korczyński, 2004). This question has helped to renew the interest in the BO activities and most resulting work seems to converge on the idea that BO activities are mostly organized on the basis of classic bureaucratic principles. However, this body of work also notes that BO workers do participate in the overall process that results in successful customer relationship (Korczyński, 2004; Zomerdijk & Voss, 2010), and must also possess high levels of emotional intelligence, similar to those of FO workers, in order to help function efficiently (Kearney et al., 2017).

Unfortunately, as many of the cited authors have already observed, the specificities of BO organization design remain critically understudied in comparison with the FO. This is further evidenced by the absence of work on the impact of recent technological innovations and overall context change that have affected the service industry. Perhaps, this is due to the static description of BO as a bureaucratic function that has historically been designed (and understood) as essentially isolated from customers and other environmental forces.

Contemporary specificities of the insurance sector: the inverted production cycle

Much of the work presented previously categorizes financial services, such as banking and insurance, as prime examples of a decoupled structure between a high-customer

interaction FO and a low customer interaction BO. Yet, despite the strong similarities, this has the effect of obscuring the important differences between the service production processes of banking firms and insurance firms. Indeed, in that regard, the insurance sector is characterized by a quite unique “inverted service production cycle” (Henderson, 2009; Plantin & Rochet, 2007; Pradier & Chneiweiss, 2017): contrary to most service production processes, insurance firms first sell a service product (under the form of an insurance contract) and require payment. It is only at a later unspecified time, and when a particular situation gives rise to an insurance claim, that insurers will fulfill their contractual duty and “produce the service” through their BO departments. In other parts of the service industry, such as the banking sector or the transportation sector, the service is first sold as a product and then it is produced at a specified time, granting access to a bank account or to a public transport. Therein lies the centrality of the BO function for insurances: while the BO in other service sectors is limited to Call Centers in charge of product support or customer care after service production, in the insurance sector, the insurance Claims Administrators are responsible for the full “insurance service production process”. To synthesize our learnings from the literature, we propose the following model (see Figure 2).

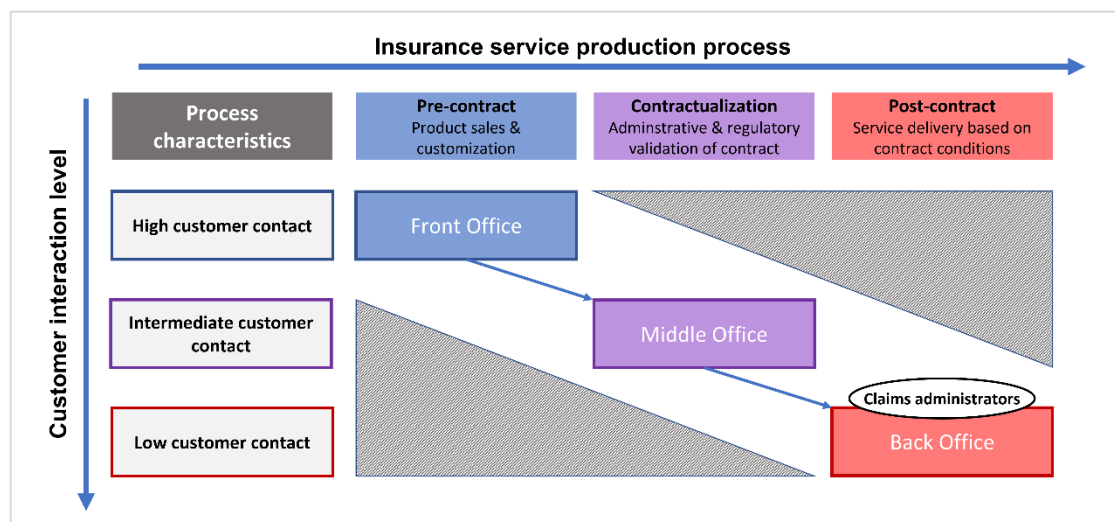


Figure 2 - Model of the service production process in the insurance sector

Research questions

As we seek to understand the disruptive impacts of digital transformation on the BO function in the insurance sector, and subsequent effects from the brutal 2020 lockdown due to Covid-19 pandemic, we have formulated three research questions:

- QR-1: How does the DT of insurances change to the characteristics of the core BO profession? Has a predominant adaptive strategy begun to emerge?
- QR-2: How has covid-19 impacted the ongoing changes resulting from DT? Has it accelerated or halted ongoing adaptive strategies in the BO function?
- QR-3: How does the evolution of the Claims Administrators profession carry impacts on the larger service production process in the insurance sector?

METHODOLOGY & DATA

Methodological framework

The data presented in this paper is the result of an 8-month multi-partner collaborative research program between researchers and two groups of stakeholders: 1) a French strategy consulting firm specialized in the financial services sector; and 2) three

insurance firms based in France (referred to as Firms A, B, and C in this article). The collaborative research program was orchestrated by the strategy consulting firm, and based on the operational methodology of collaborative research projects, as a way of bringing together academic researchers and industrial practitioners (Brocke & Lippe, 2015). Hence, for the purposes of this paper, the concept of collaborative research is meant to be understood as “*research involving participants of the situation under study as partners in a process of mutual learning. The emphasis is on initiating and participating in the collective co-production of knowledge.*” (Müller, Groesser & Ulli-Beer, 2013; Pohl, 2008).

In this case, this explorative academic-industrial research project (Lenfle, 2008) was built in hopes of creating a better mutual understanding of how the digital transformation occurring in the insurance sector was impacting their Back Office activities, with a focus on the resulting organizational impacts and changes in traditional BO professions. The three participating firms and the consulting firm were primarily interested in identifying possible common trends in adaptive strategy. As such, with the intermediation of the consulting team, and the methodological support of the academic research team, the three insurance firms agreed to independently share their respective experiences in managing the changes in their Back Office activities, as well as the adaptive strategies and projects they developed internally.

The advent of the Covid-19 pandemic was an additional source of motivation to launch the project since, early on, the industrial stakeholders identified the event as a brutal change in their operational context (specifically from March 2020 to March 2021, period during which the French government imposed 3 national lockdowns, as well as several periods of curfew and movement restriction). Since the premises of the exploratory project were grounded in a major change in context (the digital transformation of their sector), the industrial stakeholders felt that an unforeseen and dramatic event such as Covid-19 pandemic indicated a good time to take stock of the changes that had already occurred.

The project lasted from April to November 2021, and after a series of interviews with participants from each of the insurance firms, the consultants and researchers worked together to produce a first synthesis of the emerging trends extracted from the interviews and supported by other industry reports, such as those of the *Observatoire de l'évolution des métiers de l'assurance* (the French observatory for the evolution of insurance professions, translation from the authors). Then, the same data, originating from these interviews, has been further analyzed in the paper, with the objective of turning core findings into new contributions to the scientific literature.

Data collection

In April 2021, the collaborative research program began with an initial phase of alignment between stakeholders, to adapt the initial structure and planning to the government-imposed restrictions and the public health recommendations. As such, the start of the program was delayed to June 2021 and in-person collective workshops were cancelled, to focus on group interviews with several participants from each firm.

The material was collected during an extended interview phase (June-September 2021), almost entirely remotely by videoconference interviews (except for interview 1 with the participants from Firm A, which were done in their French headquarters). The interviews with Firm B and C were done in 3 and 2 sessions respectively, to accommodate the participants' schedules and ensure approximately 1 hour of combined speaking time for each person interviewed within their groups. The interviews were conducted by one of the researchers, the first author of this paper, along with three

higher level consultants from the strategy consulting firm. Each interview was done in a group setting which was composed of executive-level professionals from the Back Office function of each firm separately. In each group, the participants selected systematically included professionals from two professions: 1) Back Office Management Directors (abbreviated as BODs in interviews); and Human Resource Directors associated with the Back Office function (abbreviated as HRDs in interviews). This setup was agreed upon with each insurance firm, at the request of the consulting and academic partners, for the purpose of creating dialogues between both professions and encouraging discussions centered on the changes on the organizational and professional level.

Before the interviews took place, the interviewing team prepared an interview guide that was sent to each participant, so they were briefed on the types of questions and themes that would be discussed. During the actual group interviews, the interviewing team followed a semi-structured interview approach, using the questions on the interview guide as prompts but letting the conversation flow naturally. In total, the interviewers exchanged with ten directors (five BODs and five HRDs) over 6 interview meetings, which averaged 1h31m in duration, and approximately 1 hour of speaking time per participant (see Table 1). Each interview session was recorded with the consent of all participants, then transcribed by the academic research team for analysis, resulting in 30 pages of interview material.

Interview #	Date	Duration	Participant code	Insurance firm	Department	Position
1	17/06/2021	2h22m	BOD1-A	Firm A	Back Office Operations	Director of Operations for Car Assistance
			HRD1-A	Firm A	Human Resources	HR Director for Operations
2	22/06/2021	1h7m	BOD2-B	Firm B	Back Office Operations	Director of Customer Service for Healthcare & Pensions
3	09/07/2021	1h14m	BOD1-C	Firm C	Back Office Operations	Director of Healthcare Operations
			HRD1-C	Firm C	Human Resources	HR Partner for Client Relations Activities
			HRD2-C	Firm C	Human Resources	Director of Employee Experience
4	20/07/2021	1h18m	HRD2-C	Firm C	Human Resources	Director of Employee Experience
			BOD2-C	Firm C	Back Office Operations	Director of Collective Contract Services
5	07/09/2021	1h17m	BOD1-B	Firm B	Back Office Operations	Director of Life Insurance Operations
			BOD2-B	Firm B	Back Office Operations	Director of Customer Service for Healthcare & Pensions
			HRD1-B	Firm B	Human Resources	HR Change Partner
			HRD2-B	Firm B	Human Resources	HR Transformations PMO
6	17/09/2021	1h19m	HRD1-B	Firm B	Human Resources	HR Change Partner
			HRD2-B	Firm B	Human Resources	HR Transformations PMO

Table 1 - Overview of interviews

Data analysis process

To sort through the content-rich material, we have chosen to follow Mayring's inductive qualitative content analysis approach (Mayring, 2014, 2000) for several reasons. First, this approach provides a guided process to capitalize of the self-perceived testimonies of participants and construct interpretative organizing categories for qualitative analysis. Second, Mayring's qualitative content analysis method has already been used in multiple management sciences studies looking at the impacts of Digital Transformation (Hanelt et al., 2021; Hodapp & Hanelt, 2022; Matousek et al., 2022; Neumann, Guirguis & Steiner, 2022; Poser et al., 2022; Rudeloff et al., 2022) including recent work looking at the impacts of Digital Transformation on strategy and organizational change ((Hanelt et al., 2021).

As mentioned, we followed Mayring's 8-step process to inductive category formation process, to define and refine the main analytical categories. The 8 steps are: 1) establish

a research question; 2) establish a first group of selection criteria; 3) test out the first categories of selection on a portion of the text material (10-50%); 4) Revise the categories accordingly; 5) repeat text analysis with the new selection categories over the full material; 6) build new categories, or macro-categories, if useful; 7) proceed to inter-coder agreement check; 8) extract final results and interpretation.

Because of the focus of our research question, our initial and final system of categories focused on the organizational design dimensions of the core operational BO profession, which will initially be referred to as “Claims Administrators”. This is to say that we sought to analyze the material in a manner that could help us identify the participants’ perceived characterizations of what BO operations entail as a profession. After following several iterations of analysis, we established six categories (see Table 2):

#	Category	Scope of analysis
1	Responsibilities, tasks & results	Outputs expected from the BO workers
2	Resources, tools, material & work environment	Input elements provided by the insurance firm
3	Knowledge, skills & training opportunities	Input elements held or acquired by the BO workers
4	Relationship with management, managerial posture & practices	Supervisory or support system, and the foundational management principles
5	Interactions with customers	Points of contact & nature of the exchanges between
6	Job titles & professional qualifiers	Generic or official nomenclature for the professional

Table 2 - Structure of analytical categories induced from the material

To link the evolutions in job characteristics to the changes in operating context, we repeated our analysis of the material three times, focusing each time on a specific context and period. First, we started by analyzing the text to look at characterizations of the BO operational profession before the impacts of DT were first perceived by the participants, which dated to before the late 1990s to early 2000s. Second, we repeated the approach, focusing this time on the characterizations directly linked to the impacts of DT, which tended to occur starting in the early 2000s but truly became solidified after the 2010s. Finally, we proceeded to our last round of analysis by focusing on characterizations that were specifically linked to the events of the Covid-19 pandemic, which, in the case of France, started in March 2020. As we cross-analyzed the relevant testimonies from each of the three insurance firms with the three historical contexts, we primarily focused on the points of comparison between the three firms, to highlight the shared impacts and change strategies. In the next section, we present the results of our analysis in detail.

RESULTS

We have divided our key results into two parts. First, we will focus on the key impacts of the insurance sectors digital transformation on its BO operational activities. Second, we will highlight the effects of the Covid-19 pandemic on pre-existing BO transformations.

The key impacts of Digital Transformation on the professionals of BO function

In this first part of the results, we detail the key changes within the 6 descriptors that our participants directly attributed to DT impacts in their business sector.

❖ Exogenous changes in operational context

There is a strong consensus among participants that the DT of the insurance sector has been first and foremost characterized by exogenous changes in the BO's operational context. This is best illustrated by looking at two of the professional descriptors of the Claims Administrators profession: 1) the nature of customer interaction (through client expectations and tools of interaction) and 2) the working environment of BO employees (through their working conditions, tools and internal processes).

➤ Changes in the customer interactions and relationship expectations

Before DT, interactions with customers were described as quite limited for BO workers, and sometimes nearly nonexistent in some firms. Typically, customer interaction was done by paper mail and phone, and later one email. The nature of the interaction was primarily asynchronous, and Claims Administrators therefore often had little to no experience handling customer questions or demands in live conversations, including the possible emotional nature of the interaction.

- *“Most of the employees in BO had never had a relationship with the customer before.” (BOD2-C)*

However, as the sector's DT started to impact BO function, the insertion of digital technology enabled mass automatization of core processes in claims administration. This had a profound effect on customer experience in regard to their claims, as well as their expectations. On one side, mass digital automatization enabled relegated more simple administrative tasks to the client, through the process of “selfcare” that support clients ‘autonomy through dedicated digital tools. On the other hand, this has had the effect of leaving only the more complex claims scenarios to be handled by Claims Administrators. This is felt as a deep change in professional context considering the BO is historically expected to focus on highly standardized tasks.

- *“Everyone goes on self-care and robotization: basically, the simple things/actions are to be delegated and automated. But it is still a traditional profession...” (BOD2-B)*
- *“There is also a desire in the insurance sector to develop Selfcare. We are rather moving towards a logic of self-declaration, so that they (the customers) can seize (administrative) activities with very low value.” (HRD2-B)*
- *“Digitalized processes take care of a lot. On the other hand, we are expected to perform on the customer experience.” (HRD1-A)*
- *“9 times out of 10 the customer calls the Front (office) and it's managed. But once out of 10, it's a complicated file so we switch it to the Back. The goal today is to allow the customer to have his answer in one go.” (BOD1-C)*

➤ Changes in work environment, resources, and tools

Similarly, before the impacts of the DT were felt by our participants in the BO, they described the setup of their operation workforce relatively standard for service-type work in office settings: their work material was originally exclusively physical paper documents that were transmitted through postal channels. Gradually, the computerization process introduced a need to digitize files and documents, but this new format seemed to have little impact on the nature of the work being done. Furthermore, the office environment was characterized by large BO sites with permanent or semi-permanent assigned desks for each employee, along with a chair, a landline telephone, and a computer.

Yet, the emergence of DT has brought many changes in those regards. Material and multi-channels, accompanied by a massive digitalization of paper documents, with the aim of all three firms to tend to a “zero-paper” process. Now, insurance claims originate

from multiple sources at once and require centralized processing tools, and the number of digital communication tools (to interact with customers and stakeholders) has also grown, and their use has become much more prevalent. In some cases, participants believe it likely that digital communication channels could soon become the only means of interaction with customers. The participants have also discussed the emergence of new, innovative tools that aim to use new technologies to help BO employees to handle the greater number of claims to manage, their increasing complexity, and the higher frequency of customer interaction. In some cases, the firms have tried their best to reroute these multiple channels through one centralized platform.

- *“Another point: we are going on more multichannel. There are parts of the file by voice (by telephone), others by digital, by papers. It gives the impression of a fragmentation of files.” (BOD1-A)*
- *“The ‘phygital’ strategy: from e-commerce, take the best of physical advice but by doing it anywhere, anytime, on any channel.” (HRD1-B)*
- *“There are multi-channel tools, which allow a centralization of management tools: these are works in progress of deployment.” (BOD2-C)*

Finally, a significant change in work environment centers on remote work: testimonies show that, in all three insurance firms, this type of work practice has been introduced for many years (as early as 2012 for Firms A and B) and become gradually more prevalent.

- *“Teleworking is not very new at Firm B, it has been practiced since 2012. But before it was optional while now it is by default.” (HRD1-B)*
- *“The organization of teleworking is already a few years old, and I would say that it even affects 30% to 40% of employees, before Covid. In my field, teleworking is practiced up to about 55% of working time.” (HRD1-C)*

❖ ***Shift in operational expectations regarding skills and responsibilities***

As the digitalization of customer experience and internal operational processes gradually modified customer expectations and displaced the need for human intervention on more complex tasks, the participants described an in-depth redefinition of the professional job description of Claims Administrators. These changes were two-fold: first, new tasks and operational expectations required an updated referential on the responsibilities and results expected from operational workers. Second, as the expected results of the role changed, the participants highlighted the need to enable worker in their new performance objectives, and therefore to provide them with the appropriate skills, knowledge, and training opportunities.

➤ Introduction of new job demands & responsibilities

Changes in Claims Administration responsibilities were essentially expressed in three key themes. First, several of the participants insisted on the need for BO workers to “manage complexity”. As stated earlier, the automatization of standardized processes had the effect of removing simple or standardized claims management actions from the traditional process pipeline of Claims Administrators, leaving them with the more complex cases to handle. This is a real shift in responsibilities for these workers since, historically, their management of complex claims was limited to rerouting them to more senior insurance claims experts, who had the skills and knowledge to handle non-standardized issues. Therefore, as the participants reinforced, it has become an important point to explain to both experienced claims workers and new recruits that one of the core aspects of their job description has permanently changing.

- *“There are topics and tasks that are too complex to automate and above all too expensive!”* (BOD2-B)
- *“There is a need to grow in skills to manage more complex activities.”* (BOD2-C)

Second, as the Claims Administrators are expected to manage these complex claims, participants clarified that it would require more interaction with customers, since complex claims can often be a source of emotional stress for customers, and the unusual elements of the file may require repeated contact to gain clarification and obtain additional information.

- *“It is a future with more important information (in quantity and quality): the employee is now and will be the first ambassador of the (insurance) brand.”* (HRD1-A)
- *“We want to offer a direct telephone answer. Now there are a lot of outbound calls: we make 1.5 times the number of inbound calls in outbound calls.”* (BOD2-B)

Finally, as Claims Administrators are expected more profound and frequent interactions with customers, participants see it as an opportunity to introduce elements of sales responsibilities in the job description.

- *“The profession is also evolving, and it is still necessary to do after-sales, in order to enhance the quality of customer service.”* (HRD2-B)
- *“There is a real objective to retain the customer and equip him (with service upsells).”* (BOD2-B)

However, these types of commercial responsibilities seem limited to aftersales or upselling practices, to offer extended or more personalized insurance products.

➤ Need for new skills, knowledge, and training

Similarly, pre-DT, the knowledge and skills required to perform the administration of insurance claims was firmly standardized and focused on elements that would enable workers to analyze claims, file them and proceed to payments. With new job responsibilities, expectations in terms of skills have also changed, to ensure that Claims Administrators can manage the incoming pipeline of complex claims. Key topics center on new expert level knowledge, customer interaction skills and greater capacities in terms of emotional intelligence and ingenuity a greater array of skills.

- *“In the GPEC [French term for strategic workforce planning] transformation that occurred at the end of 2018, there are 3 main points or bases: 1) expertise, 2) the ability to manage multichannel flows, therefore a dexterity in the management to manage doc flows, especially physical and that must then be digitized.”* (BOD1-B)

Since DT, workers are expected to show more capacity for initiative and adaptability and develop strong soft skills to manage the increased interactions with clients.

- *“Initiative and individual innovation. Things are very standardized in car assistance, so innovation is limited. We are talking about ingenuity, which may be necessary, especially when combining assistance and car insurance: there is a need for situational intelligence.”* (HRD1-A)
- *“On the skills to be developed, it is everything related to the outgoing call in the BO, calling the client on a schedule and a channel that he has not necessarily chosen, and that he is ready to listen to the advisor and is satisfied with the interaction. It's a big job. There are also skills related to soft skills, less technical, but more transverse.”* (HRD1-B)

❖ *New customer contact strategy and organizational consequences*

Finally, our analysis sheds a light on the organizational consequences of DT impacts on the BO. As the operational context changed, and the job description of Claims Administrators evolved towards more complex responsibilities and more advanced skills and knowledge, the interviews bring forward to major consequences. First, there is a change in job title for the Claims Administrator role, and second there is an overhaul of the management structure traditionally associated with this profession.

➤ Transition towards a new job title

While this paper, and most practitioners, have consistently referred to the core BO profession as ‘Claims Administrators’, it is important to understand that this expression is increasing out of date with the reality of the insurance sector. Indeed, as participants from all 3 firms have clarified, the profession has gradually taken on the new title of ‘Client Advisor’ (or other similar expressions). What is particularly interesting in this study is that our interviews directly attribute this change to the impacts that DT has had on BO operations and the need to create a new professional nomenclature that signaled the change in scope to the rest of the organizational structure. By opting to rename the role as client advisors, insurance firms wish to clarify that customer interaction is now a defining characteristic of BO operations.

- *“It requires a change of posture towards the client, to go towards a posture of advice and accompaniment.” (BOD2-C)*
- *“Before, they were (case) managers. With HR, we made a change and moved to the position of client relationship advisors, with a new GPEC. That was at the end of 2018.” (BOD2-B)*
- *“We tried to be opportunistic on every point of contact and become client advisors.” (BOD2-B)*
- *“Bring quality work, with relationship advisors based in France.” (HRD1-B)*

This change in nomenclature also carries greater organizational impacts. As some of our participants have noted, this new title may be a first sign that the evolution of the BO function may introduce the need to transform the scope and place of FO activities.

- *“The great complexity between FO and BO is that it must not encroach on each other. It is necessary to ensure that there is no impact on the work of Front-Line salespeople.” (HRD1-B)*

➤ Transformation of the operational management structure

Perhaps the most profound organizational shift that we have observed is centered on the BO management structure. Whereas participants described a rather traditional vision of management pre-DT (rigidly hierarchical, legitimacy based on expertise, experience and authority, managerial processes characterized by ‘command & control’), they insisted that as the expected demands, responsibilities and skills changed for BO workers, it had similarly radical implications for their managers. Indeed, the interviews describe a complete shift in managerial posture and therefore in the relationship between operational employees and their managers. The underlying logic for this domino transformation of the management structure can be summarized in the following way: if workers are expected to become greater experts, capable of managing complex insurance claims and sustained client interactions, as well as demonstrating initiative and ingenuity, then they need managers who are capable of support them and empowering them, as coaches and facilitators.

- *“For them (operations managers), a team leader is traditionally the super expert, not necessarily a support coach.” (HRD1-C)*

- “We no longer want expert managers, at all: we want people who can lead and involve employees. The idea that “the strongest becomes the leader” is no longer true today. This logic is being disrupted by hybrid work. We have plenty of experts, and there is a low turnover (people do not leave): so we do not need expert figures, let alone expert managers.” (BOD1-C)
- “We are typically in the transition (for local managers), a transition that goes from ‘command & control’ to ‘coaching’.” (HRD1-A)

This important shift can be observed by looking at the new HR processes that all three insurance firms are developing: the participants give several examples of new training programs, assessment methods and career paths for BO managers. The expertise based on technical knowledge is no longer a path to managerial promotions.

- “Our Firm A has created a new management training for our 18k managers worldwide. They can choose their specific training modules but there is a training passport that must be maintained every 2 years. If it is not maintained, they can no longer be managers because it will be noted in yearly reviews.” (HRD1-A)

Figure 3 summarizes these results.

	Pre-2000's	Since early 2000's
	Pre-Digital Transformation	Emerging trends since the arrival of DT
Responsibilities & demands	Ensure the administrative processing of standardized insurance claims Redirect complex claims to experts	Sort and process non-standardized (automated) claims, with varying levels of complexity Manage the personal and administrative aspects of the customer relationship
Resources & tools	Mixed set of paper and computerized information Telephone communication devices	Mostly dematerialized documents Multiplication of information channels (telephone, online customer portals, emails)
Knowledge & skills	Average technical knowledge (basic legal and administrative) Standardized claims processing skills Low level customer relationship mgmt skills	Higher technical knowledge (legal & administrative expert) Flexible & customized claims processing skills Advanced customer relationship mgmt skills
Managerial relations	Hierarchical, authoritative, subordination based on knowledge and experience	Empowering, supportive, based on coaching skills
Customer relationship	Low level customer contact, mostly delayed & remote interactions through online platforms	High level customer contact, delayed and synchronized, but still remote, interactions through multiple channels
Job titles	Claims Administrators	Client Advisors

Figure 3 - Summary of DT impacts on BO Claims Administrator activities

The key effects of the Covid-19 pandemic on pre-existing BO transformations

Considering the unexpected and brutal shock of the Covid-19 pandemic on most industries, and particularly on the service industry, our participants provided several insights into how the crisis affected the DT-led evolution of the BO profession. We have identified two core scenarios that seem to indicate how first eighteen months of Covid-19 social constraints impacted changes that were implemented in the participating firms.

❖ Acceleration or extension of pre-existing transformations

In line with the current literature on the effects of Covid-19 on digital transformation processes, our participants express a strong sense of acceleration, or extension of their transformation projects. These seem to be particularly important in two of the key professional descriptors we have identified.

➤ Resources & tools

In terms of the work environment and the deployment of new digital tools given to BO workers, the participants unanimously describe a phenomenon of mass acceleration. This acceleration has impacted remote working or teleworking habits for BO workers, the increased dematerialization of paper processes, and the development of certain HR policies relating to personal care.

- *“The crisis has made it possible to accelerate several things: teleworking, the dematerialization of processes, HR policy which has taken a more marked CSR orientation.”* (HRD1-A)
- *“By necessity, there has been an acceleration of digitalization / dematerialization, especially for some activities that were still 100% paper.”* (BOD2-C)
- *“There have been awareness campaigns to help caregivers, i.e. relatives of people in daily difficulty, such as the elderly, the chronically ill and some people with disabilities.”* (HRD1-A)

However, this acceleration, at least from the participants’ perspectives, seems to have been quite welcomed and the shock was relatively easy to absorb. Indeed, in all three firms, they had been implementing digital tools and processes to enable remote work since 2012-2015. While they had not envisioned a brutal and generalized jump into fully remote operations, they were ready to take the leap when the three mandated lockdowns were imposed by the French government.

- *“We had teleworking since 2012, and we thought it would be very little. The lockdown has opened the eyes to the maturity of many to be able to manage the TT, but not all of course. In any case, it has allowed the generalization of teleworking and to break postures frozen for a long time.”* (HRD1-B)
- *“With the crisis, there was the forced TT, and at the beginning of the school year, we are aiming for hybrid work, with 50-50 between face-to-face and remote work.”* (BOD1-C)
- *“With Covid, nothing finally collapsed, even if there was a loss of collective productivity, which is classic given the situation.”* (BOD1-A)
- *“In a way, we were ready: we had the process, the reflexes, the culture, the tools, and the IT systems. Without having foreseen (the Covid crisis), we were still prepared!”* (BOD1-B)

➤ Management training and structure

The pandemic also seems to have accelerated the ongoing changes in the role and behavior of managers, with the aim of becoming more supportive of their teams and their personal concerns. This was particularly important because the lockdowns were particularly hard on BO workers, on an emotional level. Managers had to make a transition towards more empathic practices and relations.

- *“There has been an acceleration of managerial modalities or behaviors, towards an evolution of postures promoting proximity and relationships. It allowed the development of the transformation of a coach manager posture. It requires that all employees be much closer to each other, to take care of the weakest.”* (BOD2-C)
- *« Several [social] barriers fell: before Covid, we forbade ourselves from things that we allowed ourselves (during Covid) because we understood that strong empathy was more important than possible personal intrusion. »* (HRD1-A)

❖ **Resilience towards temporary stress tests**

A second notable effect of the pandemic can be summarized by the idea of temporary resilience: some of the operational disruptions were essentially limited in time and they did not seem to result in lasting consequences for the BO function, especially in ways that questioned transformations that were already underway. This was particularly noticeable in terms of temporary adjustments to three of the core descriptors: customer interactions, responsibilities and demands, and knowledge and skills.

This led to the introduction of new internal trainings, but they were essentially temporary or specific to the unique scenario of a nationwide lockdown. Mostly, this event showed the limits, especially the human psychological, emotional, and social limits of individuals in highly stressful situations.

- “We developed training on this subject (internal communication) because it was unsustainable at the beginning (of the confinement): avalanche of emails, management of messages in multichannels, advanced human elasticity, fed up with videoconf, physiological disorders. There is a collective learning that has been done and we have come out enriched.” (HRD1-A)
- “Training for employees will involve different learning with the academy. They have a very rich catalog but it needs to be reoriented and enriched to meet the needs of the transformation.” (HRD2-C)

Figure 4 summarizes these results.

	Since early 2000's	Post-March 2020
	Emerging trends since the arrival of DT	Key changes since the start of Covid-19
Responsibilities & demands	Sort and process non-standardized (automated) claims, with varying levels of complexity Manage the personal and administrative aspects of the customer relationship	Manage heightened emotional levels situations with customers, during the government-imposed lockdowns (temporary)
Resources & tools	Mosly dematerialized documents Multiplication of information channels (telephone, online customer portals, emails)	Interactive online support tools (chatbots) Portable home equipment for remote work (ongoing)
Knowledge & skills	Higher technical knowledge (legal & administrative expert) Flexible & customized claims processing skills Advanced customer relationship mgmt skills	Innovative bricolage skills to process unforeseen claims scenarios (temporary)
Managerial relations	Empowering, supportive, based on coaching skills	Hybrid, remote management experience, increased need for trust and flexibility (on going)
Customer relationship	High level customer contact, delayed and synchronized, but still remote, interactions through multiple channels	Higher level of customer exposure (temporary)
Job titles	Client Advisors	

Figure 4 - Summary of Covid impacts on DT changes in BO Claims Administrator activities

DISCUSSION & CONCLUSION

Key findings

The material was first analyzed to provide an understanding of the mutation of Back Office function in the general context of firm’s digital transformation, and with effects of the Covid-19 pandemic (and more specifically how the government-mandated lockdowns in France have affected BO insurance professionals and their customer).

Among the key findings, we can provide an answer to our first research question: the testimonies provided by the participants indicate major changes, even breaking points, between how they describe the typical role of a BO operational professional before the emergence of Digital Transformation, and after it came to redefine the general work context. In all three firms, we can see the emergence of a nearly identical adaptive

strategy, one that is characterized by a shift towards high customer interactions for BO workers. Seeing how there are profound changes across all dimensions of BO description, it seems to indicate that a shift in operational paradigm, which can be observed through ongoing redesign of Back Office function that encompasses the professional identity beyond operational activities. Recent work on DT suggests that “digital transformation activities leverage digital technology in (re)defining an organization’s value proposition, [and also] involves a new organizational identity.” (Wessel et al., 2021).

Regarding our second research question, the effects of the Covid-19 pandemic on this ongoing BO transformation are essentially two-fold: testimonies highlight either an acceleration or solidification on operational changes (such as intensified digitalized customer interaction and new managerial postures) or the temporary nature of operational disturbances. These results are in line with previous works (Paradkar, 2020; Tortorella et al., 2021) and contribute to the field by indicating the nature of activities that encompass these covid-19 effects on organization.

When compared, these two findings offer an unexpected result. Indeed, on one hand, the slow progression of DT seems to result, two decades after it first appeared, in a profound change in the professional paradigm of the core operational profession in insurance Back Office functions, one that also carries heavy organizational consequences. On the other hand, the unforeseen and abrupt arrival of the global Covid-19 pandemic seem to have had very limited impact on the BO structure. This seemingly counterintuitive result opens the possibility for further research into the link (or lack thereof) between the intensity of business contexts changes and the extent of their impacts on operational professions in the service industry.

Finally, regarding our third research question: as the DT of the insurance sector has been shown to have profoundly transformed the Claims Administrative profession, we observe an evolution of the service production process model. Under the new Client Advisor profession, we notice the emergence of a new, intermediary phase between Middle Office contractualization and Back Office service production: the complexity juncture of insurance claims (see Figure 5).

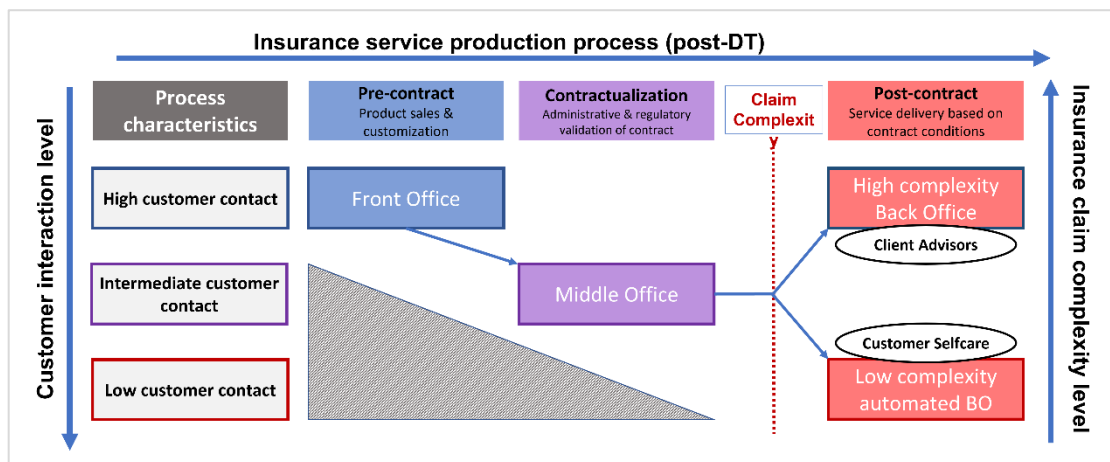


Figure 5 - Updated model of the service production process in the insurance sector following the impacts of the sector's Digital Transformation

Indeed, as the participants have explained, the DT has exacerbated the effects of claim complexity levels, and seemingly created two Back Office processes: 1) the automated BO reserved for low complexity level that can be directly processed by customers

through digital selfcare tools, thereby replacing the traditional low customer interaction BO; and 2) the high complexity interactive BO that relies on Client Advisors to process complex claims while maintaining a high level of customer interaction. This implies that the impacts of digital transformation have had such a strong effect on both the business environment and firm activities that the core organizational theories of service operations, such as the environmental isolation of the technical core ((Thompson, 1967) and the customer interaction model (Chase, 1978, 1981; Chase & Tansik, 1983; Mersha, 1990) may no appropriate be efficient concepts, at least in the case of the insurance or financial services sectors.

Limits

The nature of results presented is far from extensive and impacted by a sample bias: Indeed, the size of the interview sample and the structure of the interview processes (in groups of participants) limit the generalization of the results over the operational changes of the entire insurance sector. This would have to be confirmed on a larger sample. Furthermore, as all our participants were systematically either higher management or HR professionals specialized in BO operations, their replies mostly highlight their perception of how the BO profession, and its workers, have been impacts by DT and the Covid-19 pandemic. Moreover, the research on DT of services firms would benefit to be extended to other similar firms, which may also be moving towards a high-customer contact strategy for their Back Office roles and face similar innovation challenges. However, having conducted the interviews with each firm (and its participants) separately does indicate the potential to observe that insurance competitors are dealing with the same type of transformational context, one that is inextricably linked to the digital transformation of their operations.

Recommendations

As stated previously, this work could benefit from being extended to a larger empirical sample of companies and would require a greater diversity of participants, particularly from operations employees. There could be an opportunity to conduct a study with Back Office employees, on a large scale to see how they describe their job identity, in order to extract the more precise Global Identity Dynamics of Actors (Sardas, Dalmasso & Lefebvre, 2011). Recent work on the organizational impacts of digital transformation shows that this type of phenomenon causes a professional transformation that often goes unseen, unless it is characterized by an emotions-based analysis: the latest findings indicate that DT causes often puts professionals in a “levitating position” as they are uprooted from their traditional professional anchors before they have had the opportunity to develop new anchors in their transformed profession (Quesson & Dalmasso, 2022). By collecting their subjective input, it would enable us to see how BO employees experience and describe the transformative context, what is their level of knowledge of the new high-customer contact strategy for the BO, how they describe its feasibility or pertinence, how it affects them, and whether they are involved in the innovation process (agency) to change the roles they occupy.

Further research also calls for greater attention on HR professionals’ potential role as innovation design actors: the interviews have also indicated several instances of HR professionals creating new HRM tools and processes. It would therefore be pertinent to better understand how are HR professionals are designing innovative HR mechanisms or integrating existing ones, and how they expect to support the ongoing shift towards a new job identity for Back Office professionals?

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