

# Thesis

## Leveraging Automation: A Case Study on Employee Job Crafting

Master in Digitalization in Work and Society

FSW-140 Thesis

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Date: 01-07-2024

## **Acknowledgments**

First and foremost, I would like to take this opportunity to thank my thesis advisor Jannes ten Berge for his invaluable advice and support throughout my research. His expertise and comments were crucial to the development of this thesis, and I am grateful for his commitment to my success. I also wish to thank Francisca Grommé for her support and feedback during the final month of writing this thesis.

I would like to thank Erasmus University of Rotterdam for welcoming me as one of their students this year.

I would also like to extend my sincere gratitude to the Global Business Process Automation Manager at the case company for their invaluable assistance in organising interviews, providing insights, and guiding me through the company's processes. Additionally, I wish to thank the Group Business Transformation Director for their initial support at the outset of this research. I appreciate the time and openness of the employees who participated in the interviews, as their insights were crucial to this study.

I thank my family and friends for their unwavering support. I'd like to express my gratitude to my mother for her love, constant encouragement and unwavering support. Thanks to her, I have been able to nurture my dreams, develop my ambitions, cultivate a rigorous work ethic and adopt a humble attitude towards others. As a role model, she has always encouraged me to be myself. She instilled in me a genuine pride in my achievements and inspired me to be the best that I can be. I've tried to approach this thesis in the same way, and I hope it will make her proud too.

Finally, I would like to thank my father for instilling in me a resilient approach to overcoming obstacles with positivity and an unfailing joie de vivre.

**Abstract**

Automation technologies are increasingly reshaping organisational processes and workforce dynamics. This research investigates how employees engage in job crafting behaviour following the implementation of Robotic Process Automation (RPA) and Intelligent Document Processing (IDP) in organisational settings. Informed by qualitative interviews conducted in a global food manufacturing company, the study explores three dimensions of job crafting: task crafting, relational crafting, and cognitive crafting. The findings highlight task crafting as employees reshape their roles, reallocating time from routine tasks to more analytical and strategic activities. Conversely, relational crafting appears minimally affected, with RPA seen as enhancing task efficiency while preserving existing interpersonal dynamics. Furthermore, employees demonstrate cognitive crafting by optimistically embracing RPA to envision future automation enhancements that elevate job meaningfulness and broaden responsibilities. This study provides theoretical contributions by integrating automation and job crafting theory to better understand the impact of automation on job design. Moreover, it offers practical insights for organisations and employees seeking to effectively leverage technology to enhance workforce capabilities and adaptation strategies.

*Keywords:* Automation, Robotic Process Automation, Intelligent Document Processing, Job Crafting, Task Crafting, Relational Crafting, Cognitive Crafting, Job Design, Organisational Change

## **Introduction**

As technology rapidly advances, employees are challenged to adapt to new automation technologies. The impact of technological advances is transforming industries and workplace dynamics, and organisations are constantly reassessing and adjusting their business models to keep pace with these changes (Kraus et al., 2021; Beno, 2020). Both the warnings of resistance to these advances (Fernandez & Aman, 2021), and the risk of displacement of traditional roles (Khogali & Mekid, 2023) highlight the need for employees to adapt to their new resulting workplace dynamics (Hasgall & Ahituv, 2018).

In recent years, several studies have explored how employees perceive the introduction and implementation of new technologies such as artificial intelligence, automation, and robotization. Recent studies have shed light on employees' fears regarding these changes (Schwabe & Castellacci, 2020). Moreover, the extent of these concerns varies among individuals, influenced by factors such as gender, educational level, as well as the distinction between low-skilled and high-skilled workers (Okoye et al., 2022; Masayuki, 2017). However, there remains a scarcity of research on understanding how exactly employees manage, adapt to, and cope with new technologies (Schwabe & Castellacci, 2020). Specifically, existing literature acknowledges a shift in job responsibilities, due to automation technologies, but often lacks detailed descriptions or practical insights into how employees can successfully transition to evolving roles and tasks (da Silva Costa et al., 2022).

Despite this, the scientific literature does offer numerous coping strategies in the face of organisational change. One notable concept is “job crafting behaviours”, coined by Wrzesniewski and Dutton (2001). According to them, job crafting consists of an action by which individuals will make physical and cognitive changes in their tasks or relational boundaries of their work. As such, they identify three forms of job crafting: task crafting, which involves changing the task boundaries of the job; relational crafting, which entails altering the relational aspects of the job; and cognitive crafting, which involves modifying the cognitive task boundaries of the job.

Since Wrzesniewski and Dutton (2001)'s initial research, job crafting behaviour has commonly been observed in specific contexts, including organisational change (Demerouti et al., 2017). A previous study by Perez et al. (2022) found that employees employed job crafting behaviours to adapt to the introduction of artificial intelligence, suggesting that employees actively engage in job crafting behaviours as a strategy to adapt to the introduction of new technologies in

their work environment. However, this study was conducted within a bank and focused specifically on AI technologies.

There is currently a gap in the research regarding how employees adapt through job crafting to the broader spectrum of automation technologies, including robotics, machine learning, process automation, and other advanced technological tools, across different industries. Understanding this process is crucial because failure to effectively adapt to technological change can lead to anxiety, turnover, and decreased well-being among employees (Schwabe & Castellacci, 2020).

This study aims to address the current gap by investigating whether and how employees engage in job crafting behaviours following the implementation of automation technologies. By doing so, the research aims to enhance our understanding of the development of the employees' roles post-automation implementation and how they perceive their job roles in the context of technological change. This investigation contributes to the broader discourse on job design by examining how automation influences the restructuring of tasks and responsibilities within the workplace.

The scope of this research will focus on the three forms of job crafting: task crafting, relational crafting, and cognitive crafting. Therefore, the primary research question guiding this study is: *How do employees in a food manufacturing company engage in job crafting following the implementation of automation technologies?* To better address this question, the research will specifically examine:

- a. *How do employees in a food manufacturing company engage in task crafting following the implementation of automation technologies?*
- b. *How do employees in a food manufacturing company engage in relational crafting following the implementation of automation technologies?*
- c. *How do employees in a food manufacturing company engage in cognitive crafting following the implementation of automation technologies?*

To answer these research questions, a case study design will be employed, focusing on the introduction of automation technology in a B2B global food manufacturing company, specialising in bakery, patisserie and chocolate products. The study will particularly emphasize the implementation of Robotic Process Automation (RPA) and Intelligent Document Processing (IDP). RPA involves using software robots to automate repetitive tasks such as data entry, invoice

processing, and report generation, while IDP automates the extraction and processing of data from documents.

This research is of triple significance. Firstly, by employing the theoretical framework of job crafting to examine responses to automation technologies, it addresses da Silva Costa et al.'s (2022) observation concerning the insufficient theoretical underpinnings of RPA. Moreover, it equips policymakers with insights to formulate guidelines and frameworks for the efficient adoption and integration of automation technologies across diverse sectors. Da Silva Costa et al. (2022) underscore the necessity for objective reasoning and the development of methodologies and theoretical frameworks for RPA. Finally, from a societal standpoint, this research illuminates factors influencing well-being and job satisfaction in rapidly evolving technological environments. Such insights are crucial for fostering healthier work environments and mitigating potential negative impacts such as anxiety and job insecurity.

This thesis is structured into four main sections. The first section reviews relevant theories to establish a foundation for the research. The second section details the methodology for data collection and analysis. The third section presents the research findings. Finally, the fourth and final section discusses these results as well as concludes the research.

## **Theory**

### **Understanding automation**

Automation is commonly described as the process in which a machine undertakes tasks that were previously performed by humans (Simmler & Frischknecht, 2020). In the realm of employment, this entails transforming a work process, procedure, or equipment into an operation controlled automatically rather than by humans. Furthermore, automation goes beyond merely transferring human functions to machines; it entails a fundamental restructuring of the work process, where both human and machine functions are redefined (Gerovitch, 2004).

Robotic Process Automation (RPA) is a variant of automation technologies that focuses specifically on automating tasks performed by office workers on computers, rather than on physical production lines (Okoye et al., 2022). In simple terms, RPA refers to computer software configured to replace humans in performing manual tasks. These tasks are typically part of workflow applications and operational processes. More specifically, RPA uses non-invasive software known as BOT, and leverages the capabilities and algorithms of software, artificial intelligence (AI), and

machine learning (ML) to replicate the actions of human workers and automate repetitive, rule-based tasks for the purpose of completing various business processes (Siderska, 2021; Fernandez & Aman, 2021). UiPath, one of the many vendors offering RPA tools, includes in its umbrella of capabilities functions such as connecting to applications, moving files and folders, copying and pasting data, filling out forms, extracting structured and semi-structured data from documents, and scraping browsers, among other functions (Madakam et al., 2019). RPA thus primarily targets routine tasks, allowing less frequent and more complex tasks to be managed manually (van der Aalst et al., 2018). For instance, in supply chain operations, RPA can facilitate the handoff between suppliers, manufacturers, carriers, and customers by handling tasks such as status updates, customs documentation, shipment notifications, and various other communications (Detwiler, n.d.).

The integration of RPA into the workplace is becoming more common as companies adopt this technology into their operations to save time on traditionally routine tasks and reduce the costs associated with these tasks. However, the impact on employee attitudes has been mixed. Recent studies highlight both positive and negative effects on various aspects of employees' work lives, including job security concerns, salary, job characteristics, and overall job satisfaction (Okoye et al., 2022).

Among the many benefits of RPA, the most frequently cited is its ability to take over tedious and repetitive tasks, allowing employees to focus on more complex and rewarding tasks. This shift not only allows employees to develop new skills, enhancing their qualifications and job satisfaction, but also improves customer service by enabling faster and smoother processes. As a result, employees can respond quickly to customer requests and engage in higher-quality interactions, ultimately reducing task completion times. However, challenges persist as employee awareness of RPA's impact and their lack of knowledge and experience with the software can hinder effective implementation (da Silva Costa et al., 2022).

Despite the increasing implementation of these automation technologies, there is a scarcity of research on employees' experiences during both the initial integration phase and once they are fully integrated (Chen & Li, 2024), particularly regarding the strategies they employ to navigate potential challenges in their work environment (Peeters & Plomp, 2022). Additionally, while articles frequently discuss a shift in workers' responsibilities towards more complex and creative tasks, they often do not clearly define these new tasks. This lack of detail results in an incomplete

understanding of how RPA affects job characteristics (da Silva Costa et al., 2022; Hackman & Oldham, 1976).

### **Job-crafting theory**

Job crafting is recognised as a beneficial strategy for effectively managing organisational change (Petrou et al., 2018). It involves employees adopting a proactive, bottom-up approach to customise or adjust various aspects of their job (Buonocore et al., 2019). Specifically, job crafting refers to employees modifying the task boundaries (i.e. such as the type or number of activities), cognitive task boundaries (i.e. how they perceive their work), and relational boundaries (i.e. interactions at work) of their roles (Petrou et al., 2018). This initiative encompasses actions like task redesign, skill development, and fostering relationships. As a result of these proactive adjustments, research consistently highlights job crafting's positive impact on job satisfaction and work engagement (de Beer & al., 2016; Villajos & al., 2019; Li & al., 2023).

Wrzesniewski and Dutton (2001) describe that the main motivations for employees to engage in job crafting include the desire for control over their job and its meaningfulness, the need for a positive self-image, and the need for human connection with others. Before these motivations translate into actual job crafting activities, three moderating variables come into play: the perceived opportunity for job crafting, individual orientation toward work, and motivational orientation. Once job crafting practices are implemented, specific outcomes may include changes in job design and alterations in the social environment at work. Generally, job crafting affects employees by reshaping the meaning of their work and influencing their work identity.

In their study, Demerouti et al. (2020) illustrated how job crafting becomes a crucial strategy for employee adaptation during organisational change. The research was conducted within the logistics departments of two stores in a large retail organisation. These departments had struggled to implement standard operating procedures aimed at managing and safeguarding employee and customer safety. Through a job crafting intervention, they aimed to empower employees to embrace organisational changes, including new safety procedures, while mitigating exhaustion. Employees were encouraged to take on new safety-related tasks and responsibilities, similar to the adjustments individuals might need to make when integrating new technologies into their work routines. The study revealed positive outcomes from the job crafting intervention, including increased safety behaviour, positive change attitude, and reduced exhaustion. These



findings emphasize how job crafting empowers employees to proactively align their roles and tasks with technological changes, thereby enhancing their well-being and performance.

Job crafting is a concept that has gained prominence in organisational behaviour research, but it is prone to construct drift<sup>1</sup>. To prevent construct drift, Bruning and Campion (2018) outline six defining characteristics to ensure that behaviours classified as job crafting remain true to the original concept. Accordingly, for a behaviour to be classified as job crafting, it must meet the following criteria: 1) it must be self-targeted with the intention of benefiting the individual engaging in job crafting, 2) it must be self-initiated (volitional), indicating a voluntary effort to incite a change in one's work environment, 3) it should lead to a significant and noticeable alteration in either the task, social, or cognitive aspects of the job, 4) the resultant change should be (semi)permanent, and 5) the transformation brought about should be distinct from any crafting undertaken in alternative roles (Lazazzaraa et al., 2020).

Presently, there are two research streams in the literature addressing job crafting (Klaudia & Csaba, 2022; Lazazzara et al., 2019). They differ in their type and motivation for job crafting behaviours.

The first stream is identified as being a role-based perspective of job crafting and corresponds to the original approach of Wrzesniewski and Dutton (2001). They defined job crafting as "shaping the task boundaries of the job (either physically or cognitively), the relational boundaries of the job, or both" (p.179). Consequently, from this perspective, job crafting is seen as both a cognitive process, reflecting the way in which an individual perceives and conceives their relationships and work tasks, and a physical process, involving the concrete modification of the boundaries between these tasks and relationships. Lichtenthaler and Fischbach (2018) expanded upon the previously established three-dimensional concept of job crafting by introducing two main approaches: promotion-focused and prevention-focused job crafting. On one hand, promotion-focused job crafting, also sometimes referred to as expansion-focused job crafting (Afiouni & Pinsonneault, 2022), involves enhancing job resources, taking on challenging tasks, exploring new opportunities, and improving relationships with colleagues. On the other hand, prevention-focused job crafting focuses on reducing hindering job demands, simplifying tasks, and maintaining positive relationships to prevent potential problems.

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<sup>1</sup> *Construct drift occurs when the original and intended meaning of the construct is lost and what remains are different constructs that carry the same name* (Suddaby, 2010 in Lazazzaraa et al., 2020, p. 14).

The second stream, defined by a resource-based job crafting perspective, was developed following the framework introduced by Tims and Bakker (2010), which draws from the Job Demands-Resources (JD-R) model. As such, this perspective considers the changes that employees make in their work to balance job demands and resources with their personal needs and abilities. These changes can include expanding resources to improve the work experience or reducing tasks or work relationships to avoid stress.

This present research on job crafting adopts a role-based perspective to examine both the cognitive and behavioural dimensions (i.e. task and relational) of job crafting. Klaudia and Csaba (2022) emphasised the significant role of cognition in shaping human behaviour, underscoring the importance of including cognitive factors in examining the relationship between job crafting and automation. Buonocore et al. (2019) supported this view, demonstrating that employees tend to engage in cognitive crafting when confronted with moderate job insecurity. Given that the introduction of new technologies can contribute to job insecurity (Nam, 2019), this finding suggests that cognitive processes, along with task and relational crafting behaviours, may impact how employees engage with their work following technological changes, including automation. The subsequent section will elaborate on these relationships further.

### **Job Crafting as a framework for adapting to automation**

Job crafting has often been observed during organisational change (Demerouti et al., 2017), where it has proven to be a successful strategy for employees' adaptation (Demerouti et al., 2021). This study asserts that applying the concept of job crafting to automation technology is a significant and relevant framework. Job crafting allows us to understand how employees actively reshape their roles and responsibilities in response to automation. Unlike traditional organisational changes, the introduction of automation brings unique challenges such as redefining tasks, acquiring new skills, and adjusting to technological interfaces. These factors necessitate a nuanced exploration of how job crafting principles can be applied to ensure successful adaptation to automation. By adopting a job crafting perspective, we can delve into employees' experiences, motivations, and adjustments in this new technological landscape, offering valuable insights into the evolving nature of work in automated environments.

In their study focusing on AI, Afiouni and Pinsonneault (2022) present a theoretical model that explores how employees respond to the implementation of new technologies and utilise job

crafting to adapt to changing work conditions. They argue that the introduction of AI initiates a ripple effect, starting with the redistribution of tasks between humans and AI. This disruption challenges workers' sense of control, prompting them to restore or establish control beginning with tasks. As tasks evolve, so do the required skills, leading individuals to engage in skill crafting efforts where new skills are developed and existing ones may become obsolete. Furthermore, changes in tasks and skills necessitate adjustments in interactions with others, reshaping professional relationships. Finally, building on these forms of crafting, individuals undergo cognitive crafting, where they redefine their roles in response to AI. As individuals navigate through these ripples of job crafting, their sense of control evolves accordingly. Overall, Afiouni and Pinsonneault (2022)'s findings suggest that job crafting in the context of AI is an iterative process, thereby implying a reciprocal relationship between technology and job crafting.

Li et al. (2023) found that age-related differences exist in how the different forms of job crafting impact person-job fit and subsequently influence job satisfaction. In their study, they underscored the significance of exploring job crafting as a three-dimensional concept. This means studying job crafting not as a single, uniform concept, but rather as consisting of three distinct dimensions: task crafting, relational crafting, and cognitive crafting. Considering these findings, the present study adopts a similar approach by dividing the main research question into sub-questions, each linked to one of the three dimensions of job crafting.

The first sub-question relates to task crafting. Task crafting refers to the modification of task boundaries, i.e. adapting the type of work tasks or the number of tasks (Wrzesniewski & Dutton, 2001). Research by Szóts-Kováts and Kiss (2023) has shown that expansion-focused task crafting is positively associated with employees' willingness to change, suggesting that employees who actively extend their work tasks are more likely to accept technological advances as part of their job. As a result, task crafting may be a key strategy to enable employees to adapt their roles in the face of technological change. Moreover, Afiouni and Pinsonneault (2022) describe that in response to the introduction of AI, task crafting involves strategic adjustments by employees to optimise their roles and adapt to technological change. Four forms of task crafting adaptation are mentioned. These include *adding new tasks*, *modifying existing tasks*, *removing tasks*, and *(de)emphasising tasks* that are irreplaceable by machines. These adaptive strategies reportedly enable workers to effectively manage their roles amidst technological advancements.

The second sub-question of this present research focuses on relational crafting, which entails changing the relationship boundaries, i.e. changing who one interacts with at work and the nature of those interactions (Wrzesniewski & Dutton, 2001). Research by Szóts-Kováts and Kiss (2023) reveals that both expansion and prevention-focused relational crafting show no significant correlation with employees' readiness to embrace technological change in organisational settings. This suggests that changes in interpersonal interactions may not directly influence employees' willingness to adapt to technological advancements. In contrast, Afiouni and Pinsonneault (2022) underscore how changes in job tasks and skills due to automation reshape interpersonal dynamics. They categorise relational crafting into two forms. The first is *empowerment networking*, where individuals forge relationships with influential figures to either mitigate AI's impact or leverage its advantages. The second form is *support networking*, which aims to strengthen support systems. For example, an employee might build a relationship with colleagues who share AI-related concerns, fostering mutual support to effectively cope with uncertainty.

The third, and last, sub-question explores cognitive crafting, which involves altering how employees perceive their work tasks, whether as discrete parts or as a whole (Wrzesniewski & Dutton, 2001). Szóts-Kováts and Kiss (2023) find a positive association between cognitive crafting and employees' readiness to adapt to change, suggesting that those who adjust their cognitive boundaries are more prepared for technological innovations. Unlike task and relational crafting, cognitive crafting, as noted by Afiouni and Pinsonneault (2022), focuses on employees' mental adjustments rather than on behavioural changes in response to automation. This process begins with tasks being delegated to the technology, prompting shifts in responsibilities and roles among the technology and human agents. Consequently, employees can modify their perceptions of tasks, colleagues, and their overall job, potentially expanding, reducing, or preserving their roles based on their desired work outcomes.

These behaviours go beyond just adapting to technology as they are rooted in the motivation for employees to control their work. Job crafting, as previously discussed, revolves around employees' desires to shape their roles to enhance their work meaning, self-image, and interpersonal connections (Wrzesniewski & Dutton, 2001). When faced with technological changes, these motivations drive employees to strategically modify their tasks, relationships, and cognitive boundaries. This proactive approach isn't solely about integrating new technologies but rather about maintaining a sense of agency and fulfilment in their work. For instance, in the context

of automation, employees might engage in task crafting by adding new, more complex tasks that leverage automated processes, thus enhancing their role's meaningfulness and autonomy. Relational crafting might involve forming new networks to navigate these changes, while cognitive crafting could help in reshaping their perception of their role to align with evolving technological demands. These crafted changes could ultimately reshape job design and the social environment at work, influencing how employees perceive their roles and identities.

## **Method**

### **Research design**

This research was carried out using a qualitative case study approach. Using qualitative interviews in a case study appears to be a suitable method for studying the dynamics of job crafting in the context of RPAs. Qualitative interviews are relevant for exploring the complex interplay between attitudes, behaviours, and the adoption of new technologies. This approach enables transcending simplistic views on responses to technological change, which often categorise individuals as either strongly receptive or opposed to automation (Okoye et al., 2022). By addressing these limitations, such research efforts have the potential to significantly enrich our understanding of how employees navigate and adapt to technological transformations in organisational environments (Vakola et al., 2021). With a deeper contextual understanding, this study aims to uncover nuanced perspectives on how employees engage with automation and how job crafting unfolds in response to technological changes. This research contributes to the broader field of job design by providing valuable insights into the various dimensions of job crafting, underlying employees' interactions with automation technologies (Szóts-Kováts & Kiss, 2022).

The focus on a global food manufacturing company was motivated by the author's personal connection to the company, which facilitated data collection opportunities. Additionally, this food manufacturing company was selected as a suitable case study due to its self-proclaimed commitment to innovation and its reputation for being innovation-driven. The company began implementing RPAs in 2020, making it a relevant subject of study as it has already progressed beyond the initial stages of implementation.

According to Seawright and Gerring (2008), a typical case study focuses on a case that exemplifies a stable, cross-case relationship and can be considered representative of a broader population of cases. This approach allows researchers to explore causal mechanisms within a well-

understood model. By selecting a typical case, the researcher aims to validate or challenge existing theoretical pathways. In this context, the chosen food manufacturing company serves as a typical case study, offering insights into the general, cross-case relationship between the implementation of automation technologies and employee's job crafting behaviours.

### **Case Study Context**

The interviews were conducted in a global food manufacturing company (over 10.000 employees), which had started implementing RPA software in 2020. Like many other companies, it had experienced the introduction of numerous automation technologies in recent years, including the introduction of RPA, Intelligent Document Processing (IDP), chatbots, AI, Application Programming Interface, etc. The company benefits from these technologies by efficiently automating repetitive tasks, seamlessly integrating systems, ensuring fast deployment and flexibility, and enhancing quality and compliance across its processes.

Their overall program “Business Automation Platform” harnesses technologies such as RPA and IDP to enhance operational efficiency and accuracy across a range of processes. This research examines both RPA and IDP, two distinct yet complementary approaches to automating business processes. The justification for this dual-focus approach lies in their shared objective of enhancing operational efficiency and reducing errors through automation (UbiAI, 2023). Moreover, both technologies align closely with the company's goals of minimising manual and repetitive tasks.

### **Method of data collection**

Data was collected through 13 interviews, continuing until data saturation was reached. Participants were selected based on their involvement in the implementation of RPAs within their respective roles. The selection was facilitated by the *Global Business Process Automation Manager* of the company, employing purposive sampling. This method of sampling involves intentionally choosing participants who are most likely to provide valuable and insightful information relevant to the research topic. Additionally, snowball sampling was utilised to gather further participants. Snowball sampling refers to recruiting initial participants meeting study criteria, who then refer other employees meeting the criteria (Knott et al., 2022).

Interviews were conducted both face-to-face and online to accommodate the location, the availability and the preferences of the participants. This study adhered to ethical guidelines for research involving human participants. Participants' confidentiality and anonymity were ensured. A day before the interviews, an informed consent form was sent out via email to all selected participants, outlining the purpose and procedures of the study.

Interviews were conducted with eight employees and five managers.

**Table 1**

*Participant Characteristics*

	<b>Role</b>	<b>Job family</b>	<b>Gender</b>	<b>Technology</b>	<b>Country</b>	<b>Location</b>
<b>1</b>	Employee	Customer service	Male	IDP	Canada	MT
<b>2</b>	Manager	Pricing	Male	RPA	Belgium	HQ
<b>3</b>	Manager	R&D	Female	RPA	Belgium	HQ
<b>4</b>	Employee	R&D	Female	RPA	Belgium	HQ
<b>5</b>	Manager	Finance	Female	RPA	Belgium	HQ
<b>6</b>	Employee	Pricing	Male	RPA	Belgium	HQ
<b>7</b>	Manager	Tax & Legal	Male	RPA	Belgium	HQ
<b>8</b>	Employee	R&D	Male	RPA	Ukraine	MT
<b>9</b>	Employee	R&D	Female	RPA	Philippines	MT
<b>10</b>	Employee	Internal Audit	Female	RPA	Belgium	HQ
<b>11</b>	Manager	Customer Service	Male	IDP	Canada	MT
<b>12</b>	Employee	Pricing	Male	RPA	Belgium	HQ
<b>13</b>	Employee	R&D	Female	RPA	Belgium	MT

**Material**

Semi-structured interviews, guided by a grounded theory approach, were conducted to address the research question. An interview guide (Appendix A) was used to structure the interviews, which lasted between 45 and 60 minutes, providing participants the opportunity to freely share their experiences and opinions. These interviews were conducted either at the company's headquarters (HQ) or via Microsoft Teams (MT). All interviews were recorded and transcribed. The transcriptions underwent manual adjustments to meet APA standards after being initially generated through automated transcription.

The interview guide was developed to answer the three sub-questions of this research, each related to a form of job crafting. Consequently, the interview was structured into four main parts. The first part focused on understanding the interviewee's role within the company, their overall opinion on automation, and their perspective on its implementation. The subsequent three parts comprised questions specific to the three forms of job crafting: task crafting, relational crafting, and cognitive crafting.

A PowerPoint presentation titled 'Business Automation Platform' was utilised to provide a comprehensive understanding of the company's approach to automation. This presentation, created by the company, includes an explanation of how the company organises its automation processes and the different automation technologies employed. It also outlines their automation goals, the benefits of RPA, specific examples of RPA applications, and the challenges encountered. Additionally, the presentation covers foundational principles, governance structures, portfolio management processes, and the support organisation model.

### **Method of analysis**

The qualitative data analysis software ATLAS.ti (Version 23.2.0) was employed for the interviews analysis. Coding strategies are applied in alignment with job crafting theory. Deductive coding categorises data based on established dimensions such as task crafting, cognitive crafting, and relationship crafting. Adductive coding explores themes that bridge theory and emergent insights from the data. Inductive coding identifies entirely new themes that enrich our understanding beyond initial theoretical constructs. More specifically, Braun and Clarke's (2006) thematic coding approach guided the following six stages:

1. *Familiarisation*: Transcriptions were reviewed comprehensively to gain a thorough understanding of the data.
2. *Initial Coding*: Significant pieces of data were initially coded to identify key themes, employing a deductive coding approach to relate each topic to the three forms of job crafting. This process also involved inductive coding to explore emergent themes beyond the predefined categories.
3. *Theme Identification*: Themes within the data were identified through open coding, informed by relevant literature on job crafting and automation. Responses were categorised



according to types of job crafting (e.g., task crafting, cognitive crafting, relationship crafting) using axial coding, with additional points captured to enrich the analysis.

4. *Theme Reviewing*: Identified themes were reviewed and refined to ensure alignment with the underlying data. This stage employed a hybrid coding approach that integrated both deductive and inductive insights, incorporating literature-based themes and emergent themes. A code book (Appendix B) was developed during this stage to structure the analysis.
5. *Theme Definition*: Themes were defined and named based on the data, ensuring accurate representation of the underlying themes.
6. *Report Production*: Findings were compiled into a comprehensive report that clearly presented the identified themes and their implications.

This structured approach facilitated a thorough analysis of the interviews, encompassing both deductive and inductive reasoning derived from theory-driven and emergent themes, respectively. The integration of adductive reasoning ensured a comprehensive exploration of the data, enhancing the richness of the analysis.

### **Key considerations**

The interviews being conducted within a single company necessitate addressing two key considerations. Firstly, given the sensitive nature of the topics discussed (e.g. job insecurity) participants may hesitate to openly share their opinions. To mitigate these concerns, confidentiality and anonymity were ensured, aiming to create an environment where participants feel comfortable providing honest feedback without fear of repercussions. Secondly, acknowledging power dynamics is crucial. Employees may feel pressured to offer positive feedback due to concerns about how their responses could affect their standing within the company. The independence of the research was emphasizing, prior to the interview, to help alleviate these pressures and encourages more genuine responses.

### **Findings**

This section examines the different forms of crafting observed among employees in the food manufacturing company under study. First, the specific processes of RPA and IDP implemented in the company will be explained in detail, providing a comprehensive understanding

of their roles and impacts on the workplace. Following this, task crafting is explored, with employees saving time due to the elimination of repetitive tasks and therefore performing tasks with greater added value. Relational crafting is highlighted, examining how employees shape their relationships with others in the workplace, including the integration of the RPA as a perceived new team member. In addition, cognitive crafting is discussed, focusing on how employees' perceptions of and approaches to their work processes have changed as a result of the implementation of RPAs.

### **RPA and IDP Process Description**

The RPA pipeline of the company under study consists of seven stages: ideation, feasibility analysis, business case development, development phase, pilot testing, hyper-care, and process automation. Currently, the Research and Development (R&D) department leads with 11 scripts/bots at the automation stage, followed by Pricing, Tax & Legal, Finance, Internal Audit, and Sales and Marketing.

RPA is primarily used for data entry and validation tasks, such as safety stock calculations and demand forecasting. It automates these repetitive tasks, ensuring accuracy and freeing employees to focus on more strategic work. RPA manages shipment tracking, providing real-time updates on the status of shipments, and handles returns processing, streamlining the workflow for returned items.

For instance, the company has implemented an RPA system to streamline the pricing transfer request process. This automation is designed to efficiently handle standard pricing requests, ensuring quick and accurate responses while reducing the need for manual intervention. The process can be broken down into a series of steps. The process begins when a requestor from a local country submits a pricing transfer request, typically made via email or by filling out a form. Upon receiving the request, the RPA bot initiates the first script, which involves looking up the material in the company's database and verifying whether the material code provided in the request exists within the system. If the RPA bot confirms that the material code exists, it then generates the appropriate price and quotation for the material based on the existing data. Once the price and quotation are generated, the bot sends this information directly to the requestor via email. This streamlined process ensures that requests for existing materials are handled quickly and efficiently, providing the requestor with the necessary pricing information without delay. If the RPA bot determines that the material code does not exist in the system, the process involves additional steps

to gather the necessary information and define new pricing. The bot sends an email to the Pricing inbox, notifying the pricing team that a material code is missing and requires attention. A member of the pricing team, known as the Single Point of Contact (SPOC), then takes over the request. The SPOC gathers all the necessary inputs, such as market data, cost structures, and other relevant information, to define the new pricing for the material. Once the new pricing is established, the SPOC prepares the price and quotation and sends it to the requestor, completing the process.

IDP focuses on automating the processing of complex documents. It is used for purchase order confirmations, ensuring that orders are accurately confirmed and processed. IDP also manages claims processing, streamlining the validation and approval of claims. Moreover, it handles insurance documents and other certifications, extracting and validating necessary information to ensure compliance and accuracy. The company employs IDP to enhance its operational efficiency in the area of purchase order confirmation, claims processing, and handling insurance documents or other certifications. The IDP system employs technologies like Optical Character Recognition and Natural Language Processing to automate and streamline these processes.

For instance, in the customer service department, IDP has been particularly beneficial for processing large volumes of purchase orders from one of the company's biggest clients. This client frequently sends in bulk orders, which used to require significant manual effort to process. With IDP, these orders are now directly sent to the system, processed within seconds, and then seamlessly integrated into the company's live system. The IDP system can accurately read and process about the majority of orders, allowing customer service employees to focus on verifying the processed data instead of manually inputting it.

### **Task Crafting**

Respondents highlighted significant time savings resulting from the implementation of RPA. They did not indicate that their managers or higher-level personnel instructed them on how to utilise the time saved. This was likely because the implementation aimed to relieve them of repetitive tasks. Although these tasks were not a significant part of their overall job responsibilities, automating them would allow employees to dedicate more time to their existing tasks. However, the absence of clear guidelines on how to utilise this newly available time suggests that respondents had autonomy and control over how they chose to reorganise their task. Moreover, many

respondents reported that this newfound efficiency allowed them to manage their workload more effectively. Interviewee 10 noted,

“Just focusing on other projects of my job or task [...]. For example, normally if I do have to do everything manually, then I need to focus for a full day on one business cycle. But with the bot, I can do three business cycles in a day, so I can do more work. Write more reports because of the bots, so we can do more audits and, for example, what I would say for our job, to detect faster frauds. Our scope extends. »

The adoption of RPA indeed allowed some respondents to expand their roles. While eliminating these tasks could have potentially led to job redundancies, this shift meant that, while their roles expanded, their workload remained manageable as repetitive tasks were now handled by RPA. Interviewee 5 was originally responsible for overseeing cost calculation across 20 countries. The process was time-consuming, requiring hours of manual work each week. By implementing RPA, she delegated repetitive tasks like data retrieval and VLOOKUPS<sup>2</sup> to the robot. This transition enabled her to extend her responsibilities to overseeing cost calculations for up to 59 countries, and without increasing her personal workload significantly. Interviewee 5 shared:

“We had it in the past and then we said with this one, we are released. We don't need to do it anymore. [...] I will not spend anymore hours, and hours every Monday morning, running the reports for the countries.”

Interviewee 5 noted a significant increase in operational efficiency and the ability to dedicate time to tasks that directly impact business objectives. This proactive realignment illustrates task crafting, where Interviewee 5 autonomously reorganised her workload to focus on tasks that directly impact business objectives, without requiring new skill acquisition. By leveraging RPA to streamline repetitive tasks, she effectively redesigned her job to enhance operational efficiency and expand her scope of responsibilities.

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<sup>2</sup> VLOOKUP is an Excel function used to find information in a table or range by searching for a specific value in a row. For example, it can be used to look up the price of an automotive part by its part number or to find an employee's name based on their employee ID (Microsoft Support, n.d.).

Additionally, the introduction of RPA streamlined communications with affiliates, ensuring consistent and reliable feedback on data accuracy, regardless of holidays or absences. With RPA, employees have been able to redirect their efforts from handling routine queries to focusing on personalised customer interactions tailored to specific customer needs and preferences. This shift allows them to engage more deeply with clients, addressing unique requirements. Interviewee 6 shared,

“In general, it's about being more present and being more helpful for the affiliates and to have more time to put an analysis. On the product scope, for example, to reach out to local colleagues and to help them where possible.”

This shift highlights the proactive engagement of employees in reshaping their roles through task crafting. With the introduction of RPA, employees seized opportunities to streamline workflows and autonomously redefine their responsibilities. Rather than simply responding to tasks, they took initiative to engage proactively with affiliates and local colleagues, offering tailored support and analyses, as noted by Interviewee 6. This proactive approach resonated with their professional aspirations to make their work more meaningful, focusing on strategic decision-making and fulfilling unique customer needs. By gravitating towards these tasks, employees demonstrated their preference for activities they perceive as more engaging.

From a quantitative perspective, respondents provided specific comparisons to illustrate the time savings. Tasks that previously took up to three days could now be completed in just a few minutes with the assistance of RPA, thereby allowing them to achieve more within a day. Interviewee 9 explained,

“It is more productive for us since it lessens the time to finalise or to hand over all the information because it will just take you around 15 to 30 minutes and everything is already uploaded and all the concerned departments have the information and like, before, it will take you around one to three days just to accomplish all the handovers. And the completion of the process is more rapid and, actually the forms, that we are completing was there is already a compliance with the regulation and standards, so once we input there in the file, it automatically checks if all our formulation would comply with all the regulations.”

The time savings reported by the respondents stem from no longer having to perform tasks they consider having little to no added value, often describing these tasks as repetitive and mundane. However, these tasks are necessary, such as for compliance purposes. As Interviewee 7 explained: “So commodity codes<sup>3</sup>, it's actually also a repetitive stupid thing to do as a human. It doesn't add much value, but it is very important that it is actually being done”. Many respondents characterized these tasks as undesirable and boring, indicating that they did not enjoy performing them. Interviewee 10 shared,

“We just need to send out an e-mail and within one, max, 2 hours, your data is prepared and then you can perform your analysis so it's also more interesting because [...] if I always need to extract the data and, if it's a little bit boring after a while. So, it's better to analyse immediately.”

As previously discussed, RPA replaces tasks that interviewees commonly described as 'non-added value' tasks. These tasks were perceived as lacking in value even before RPA implementation, which likely motivated the decision to adopt RPA. This perception suggests that these 'non-added value' tasks diminished the meaningfulness employees associated with their jobs, prompting a greater willingness to embrace the technology. By automating these 'non-added value' tasks, employees could redirect their time and effort towards more meaningful work activities. When asked, interviewee 2 described those 'non-added value' tasks as follows,

“Nonvalue task for me it's about repetition. Where you don't need the brain or little of brain expertise [...]. To illustrate it in Pricing, to be able to give a price, we need to collect a lot of information about costing, about many things, and this information is already available in two systems [...]. Before the RPA, we used to spend 80% of our time just to collect information, which was already existing. And then we were putting that into an Excel or whatever platform. And then afterwards, we would really put the added value of analysing and it's the rule. The percentage rule 80%/20% on that case, 80% just collecting data. Which doesn't bring any value. Just collecting.

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<sup>3</sup> Commodity codes classify goods for import and export. They determine import duties and VAT percentage, crucial for calculating costs (DKM Customs, n.d.).

But it's a must. It's a prerequisite in order to perform the 20% of added value where we analyse and take a decision about the price. That's how I defined non added value activities in pricing.”

In this context, meaningful work activities involve tasks such as analysing the collected data, interpreting it, and making decisions based on that analysis. These activities contribute directly to the strategic goals of the organisation, such as setting prices based on thorough analysis rather than simply aggregating data. They emphasise problem-solving and critical thinking skills as meaningful work activities. By engaging in these tasks, employees craft their roles to align with their skills and interests.

This interview excerpt also further highlights how employees have adapted their tasks due to RPA. They now rely on robots to perform initial data collection and validation, which means that some of their tasks seem to have shifted from manual data gathering to more complex analytical work. This shift would allow them to focus on higher-level decision-making and strategic planning. For instance, internal auditors noted that they can now conduct more thorough audits in various departments. This allows them to ensure processes align with the company’ rules and improve overall efficiency. By using RPA to extract and manage data from SAP<sup>4</sup>, they can perform more detailed analyses and provide insightful recommendations. As Interviewee 7 explains:

“RPA did already help me in making sure that certain tasks are being done and that we are compliant, but it doesn't mean that I don't have tasks that need to be done. And also relate to compliance [...] What I just want to point out is that the things which require thinking, analysing, reading, I have more time for this but, to be fair, I will always make sure that, given the importance, that it's being done, irrespective whether I would have got an RPA or not.”

Other employees also noted that the time saved by RPA allowed them to dedicate more time outside of work. Indeed, RPA enabled employees to complete their tasks more efficiently, allowing them to finish closer to their actual end time. This efficiency seemingly not only promoted a better work-life balance but also reduced stress levels, as employees no longer needed to extend their working hours to meet deadlines. Interviewee 12 highlighted that RPA provided the opportunity to take quality time for themselves, alleviating the feeling of being overloaded. This

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<sup>4</sup> The Enterprise Resource Planning system implemented in the company under study.

reflects how employees, motivated by the desire for improved work-life balance and reduced stress, utilise task crafting with RPA. They recognise that time saved by RPA can be dedicated to personal activities, contributing to a healthier work-life balance and reduced overwhelm.

However, the integration of RPA has also introduced new responsibilities. Some respondents now feel the need to ensure that the data generated by the robots is accurate and up to date, requiring regular monitoring and validation. Opinions on this aspect varied. While some participants deemed it unnecessary to verify the RPA's output, others approached it with scepticism. This need to verify can be seen as a form of task crafting, where employees maintain control over their decisions by checking the input of the RPA. They assert their expertise and judgment, viewing their human insights as potentially superior to or complementary with the technology's outputs. As Respondent 10 mentioned, “There is always an output and it's not always the sample that I would have picked so I always double check the data.” In contrast, Respondent 6 emphasized the importance of trust in the automation process, arguing that without trust, the benefits of RPA would be reduced. He noted:

“It has been extensively tested before to make sure that, in the end, because what is the added value of checking the output of an RPA? [...] You need to trust it. You need to extensively test before you implement it, but then, once it is implemented you need to go with the flow otherwise, you would also spend time on checking what the RPA did. And in the end, well, what would be the added value?”

By promoting a streamlined approach to verifying RPA outputs, Respondent 6 engages in task crafting by influencing how automation is integrated within their workflow. This approach allows respondent 6 to focus on strategic oversight and decision-making.

Moreover, the implementation of RPA has also introduced instances where employees need to rectify errors made in relation to the robot. Interviewee 9 highlighted this challenge, noting that once the robot completes its task, errors in the uploaded file may require manual correction. This process can be time-consuming, taking one to two hours to identify and fix errors, particularly because the RPA system does not automatically pinpoint the exact nature or location of errors. However, as Interviewee 9 clarified, such occurrences are rare. This rectification process underscores employees' need for job control and a meaningful connection to their work. They strive



to ensure accuracy and maintain the integrity of their tasks, aligning with their professional standards and ensuring that their contributions retain significance within the automated framework.

In summary, following the implementation of RPA, employees experience significant time savings and a reduction in non-value-added tasks. This newfound efficiency enables them to allocate more time to analytical, complex, or strategic tasks, thereby exemplifying expansion-focused task crafting as they actively redefine the boundaries of their roles to better align with their skills and preferences, rather than merely adapting to organisational changes. The automation of routine tasks not only saves time but also enhances the accuracy and quality of work, as it allows employees to focus on tasks that require higher-level cognitive abilities and strategic thinking. Unlike other technologies that faced resistance, RPA has been embraced by employees, demonstrating their readiness to integrate it into their work processes. Their strategic realignment underscores their autonomy in shaping their work tasks and their adaptation to leverage human capabilities where automation may not fully substitute.

### **Relational Crafting**

In this study, it was found that employees often conceptualize the RPA as a member of their team. However, respondents did not indicate changes in team relationships due to the presence of the RPA. While the introduction of RPA did not alter team behaviours significantly, it did facilitate more efficient communication and task execution. Moreover, the RPA was perceived as an additional colleague in the team, providing assistance without the need for physical presence. Respondents acknowledged the RPA's role in augmenting their capabilities and contributing to task completion, likening it to having a reliable team member available for support. As Interviewee 5 mentions,

“It's a help. It's another colleague in the team. Without seeing it every day.”

However, while the RPA facilitated task efficiency and improved workflows, it did not replace human interaction or impact the need for personal connections in certain aspects of work. Employees continued to engage with colleagues and external stakeholders for collaboration and problem-solving, without a perceived significant shift in the nature of interactions due to the RPA's involvement. Interviewee 2 explains,

“Does it change the collaboration or the relationship? Not that much, because we knew, and we know each other very well. So, no. The RPA in all case, didn't change the behaviour. Relationship and the behaviours among the team members. That's really not.”

As discussed in the Task Crafting section, RPA significantly broadened employees' scopes of work. Traditionally, such broadening of responsibilities might imply the need for hiring new team members. However, RPA enables this expansion without necessitating additional headcount. As Interviewee 2 explains:

"The time saving is reallocated to other tasks, new tasks usually. Or to not grow the team. I mean we can handle more activities than we used to do before, without the RPA."

Yet, RPA can be perceived akin to a new team member by some respondents. This distinction is interesting as the addition of new human team members can potentially alter existing relational dynamics within teams. Interestingly, despite its transformative impact on workload and responsibilities, RPA implementation did not appear to significantly disrupt or alter relational dynamics among team members. Moreover, the essence of RPA seems to lie in its ability to enhance efficiency without mimicking human behaviour, thereby not altering interpersonal relationships. This point is further emphasized by Respondent 9 who stated,

"RPA doesn't imitate a person. So that's what I like about it. It just makes your task efficient, and I think smarter."

Overall, the integration of RPAs into the work environment has led to subtle adjustments in relational crafting among employees. While the RPA is perceived as an integral member of the team, its presence has not significantly altered relationship dynamics. This suggests that employees did not perceive their interpersonal connections as either threatened or enhanced by the RPA, reducing the motivation for relational crafting aimed at fulfilling their need for human interaction. Instead, employees appear to have embraced the RPA as another collaborative partner.

## **Cognitive Crafting**

Following the implementation of RPA, respondents expressed a shift in how they perceive and approach their work processes. This cognitive reframing is characterised by a positive outlook towards the potential for further automation. Many participants now consider the possibility of introducing additional automated solutions for repetitive tasks, indicating an openness to technological integration. As Interviewee 3 shares:

“It gives you time to do other things, but it also pushes you thinking in another way and... But in a positive way that at the moment that you are doing things or even new things that you should do you, there is immediately a reflection. Ah. Should I not do it with digitalization? Because yeah, it's repetitive work. And yes, it's routine and routine for me in, in a sense, it's not always good.”

However, when it comes to proactive initiatives, employees typically do not discuss this possibility with colleagues, and it is primarily respondents in managerial positions who have initiated the implementation of RPAs. Additionally, despite this enthusiasm, respondents admitted to having a limited understanding of the underlying technology of RPAs. Often, during interviews, respondents seemed confused or unaware of what RPA stands for exactly and had trouble differentiating it from other automation technologies. Therefore, their engagement with RPAs is primarily functional, as they utilize the tools for their immediate needs without fully grasping the technical details. Nonetheless, there is a curiosity and a desire among some employees to learn more about the technology. They also expressed an interest in hearing more success stories related to RPA implementation, as these examples could help them envision broader applications of the technology within their work. Interviewee 10 shared:

“To think out-of-the-box, to use the bots for which kind of activities within the job we can use the bots because now we got the bots and it's like you can use for this business cycle, but I don't have actually any clue what the bots can do else than extracting, for example, data. [...] People should know what are the possibilities of the bots that they can deliver. [...] That they give like real time, key, examples, how and what was successful in other companies. [...] Which kind of department was using, what was successful, and these were the results of using the bot. That would

be interesting for other departments. To have an eye on or to get more information on, because it will stimulate itself to use smart bot, to think of using a bot.”

Additionally, it seems that a factor contributing to the positive cognitive reframing is the lack of fear regarding job replacement by RPAs. Some respondents attributed their lack of fear to the company culture, which did not foster concerns about being replaced by robots. Additionally, respondents noted that the robot's limitations, such as necessity for standardized data inputs, and the nature of their work, which often requires human judgment and reflection, alleviate concerns about being replaced. As Interviewee 9 states:

“What I like about the RPA is that it's not the same with AI. There's still the human intervention because of the, it's just a tool, but it doesn't assess what you upload or input in the platform so you still have that human intelligence that can give that decision link.”

Respondent 9 highlighted how the introduction of RPA has reshaped her perception of her role within the company. She described a shift towards a focus on "operational efficiency", with the increased complexity of processes making her work more engaging and interesting. For instance, in her role within R&D, when a new product formula is created, the robot automatically uploads the necessary information into the system, making the process more efficient. This automation has led to greater operational efficiency, as multiple activities can be handled simultaneously, and results and transactions are completed quickly. The streamlined processes have enhanced her experience, adding a layer of complexity that she finds more stimulating.

However, most respondents also pointed out that the current scope and impact of RPA on their work are limited. While RPAs effectively handle certain of their repetitive and mundane tasks, their overall impact on their overall job perception remains minimal. Respondent 7 stresses “But for the moment, we should also not exaggerate what RPA is doing”. As such, many respondents view RPAs as helpful tools for specific tasks but not as transformative elements in their roles. They envision extending the use of RPAs to other tasks in the future, which could then potentially have a greater impact on their perception of their roles. Interviewee 10 discusses:

“It’s still one process that we are using the bot. So, at the moment it doesn’t have like a huge impact on our way of working. But it might be in the future, for example, if you’re using more and more. For other business processes, then it can happen.”

In summary, the cognitive crafting observed in response to RPA implementation involves a positive reframing of work processes, an openness to further automation, and an understanding of RPAs as supportive tools rather than threats. This implies that employees seek to maintain a positive self-image in their work by capitalising on the integration of RPA. They perceive RPA as a tool that enhances the meaningfulness of their work by taking over repetitive tasks. This capability of RPA allows employees to reframe their job roles, focusing on tasks that contribute to a sense of purpose and significance. Consequently, they mentally envision selectively applying RPA to those tasks that detract from their perception of work as meaningful. The overarching aim is to redesign their jobs, ensuring that the tasks they perform align with a more meaningful and fulfilling perception of their work. This cognitive crafting reflects their desire to view their work holistically, emphasizing tasks that enhance their professional self-image. However, this positive outlook is tempered by the recognition of the current limitations of RPAs, leading employees to anticipate broader applications of automation in their roles.

### **Discussion**

The aim of this research was to understand how employees at a food manufacturing company engage in job crafting following the implementation of automation technologies. Therefore, the main research question was formulated as follows: *How do employees in a food manufacturing company engage in job crafting following the implementation of automation technologies?* To achieve this, the main research question was divided into three sub-questions based on the three forms of job crafting theory: 1) *How do employees in a food manufacturing company engage in task crafting following the implementation of automation technologies?* 2) *How do employees in a food manufacturing company engage in relational crafting following the implementation of automation technologies?* and 3) *How do employees in a food manufacturing company engage in cognitive crafting following the implementation of automation technologies?*

Among the various forms of job crafting observed, task crafting emerges prominently from the interviews conducted. Employees described significant adjustments in their tasks, leveraging

RPA to streamline routine processes and allocate more time to analytical and strategic responsibilities. This form of expansion-focused crafting reflects their proactive efforts to reshape their roles in alignment with their skills and preferences. In contrast, relational crafting appears limited, as RPA's integration has not substantially impacted interpersonal dynamics in the workplace. Finally, some evidence of cognitive crafting was noted, where employees reframe their perception of work and embrace RPA as a tool that enhances job meaningfulness. The current localized scope of RPA implementation in the company appears to restrict its impact on both cognitive and relational crafting behaviours.

### **Theoretical Implications**

The theoretical implications of this thesis contribute to the understanding of how employees engage in job crafting following the implementation of automation technologies, specifically RPA. The study delves into the three forms of job crafting theory—task crafting, relational crafting, and cognitive crafting—providing insights into each dimension's manifestation in the context of automation technology implementation.

As the main purpose of RPA is to streamline certain tasks for employees, this might explain why, despite the limited scope of RPA in the company, task crafting is evident among respondents. Moreover, employees have reported that the elimination of repetitive tasks has allowed them to redirect their focus towards more strategic endeavours. This increased efficiency may manage and also broaden their responsibilities, as demonstrated by examples where employees managed larger tasks without increasing personal workloads. Such crafting aligns with what Lichtenthaler and Fischbach (2018) term 'promotion-focused job crafting,' or 'expansion-focused crafting' (Afiouni & Pinsonneault, 2022) where individuals take on challenging tasks and explore new opportunities. Additionally, the thesis findings resonate with Afiouni and Pinsonneault (2022)'s research on AI, as both studies emphasize how task crafting involves strategic adjustments by employees to optimize their roles in response to technological changes. Afiouni and Pinsonneault (2022)'s categorization of task crafting into four forms is also evident, as employees in this case study have added new tasks (e.g., error rectification), modified existing tasks (e.g., enlarging scope), removed tasks (e.g., tasks automated by RPA), and emphasized tasks (e.g., deeper analysis). These changes appear to enable workers to effectively manage their roles amidst the RPA's implementation. Moreover, by freeing employees from repetitive tasks, they appear to be able to concentrate on

more meaningful activities. This aligns with Wrzesniewski and Dutton's (2001) assertion that individuals engage in job crafting to gain greater control over the meaning of their work.

Additionally, the findings indicate that the expression "saving time" in the professional context primarily refers to the partial or total elimination of repetitive and manual tasks. Tasks requiring reflection, analysis, and decision-making are not perceived as areas where significant time savings should be sought, implying that such activities should not be replaced or reduced through automation. Therefore, the concept of time saved appears to be relative and largely dependent on the type of tasks performed by employees. By eliminating or reducing repetitive tasks, employees can allocate more time to complex and rewarding activities, which are seen as valuable investments of time for the creation of added value. Consequently, the notion of time saved should be considered in relation to the total amount of time employees devote to their work, and not simply in terms of the quantity of tasks completed.

In terms of relational crafting, the study's findings indicate that employees perceive RPA as a valuable addition to their team, likening it to a supportive colleague that enhances task efficiency without disrupting human interaction. The dynamics among team members appear to remain unchanged following the introduction of RPA, indicating continuity rather than significant alterations. These findings are consistent with the insights of Szóts-Kováts and Kiss (2023), who suggest that shifts in interpersonal interactions may not directly influence employees' readiness to adopt technological advancements. Their research suggests that changes in relational crafting show no significant correlation with employees' acceptance of technological changes within organisational contexts.

Additionally, the absence of relational crafting suggests theoretical implications regarding how employees engage in the iterative process of job crafting. Afiouni and Pinsonneault (2022) propose that job crafting evolves through task crafting, relational crafting, and cognitive crafting in response to technological changes. The lack of observed relational crafting indicates that employees can focus on adapting tasks and redefining their roles cognitively, without significantly altering their working relationships. Furthermore, this suggests that the current stage of RPA implementation may not yet prompt employees to reconfigure their professional interactions, highlighting a potential delay or specific trigger needed for relational crafting to emerge in response to automation technologies.

Regarding cognitive crafting, employees have experienced a cognitive shift following the implementation of RPA, marked by a positive attitude towards further automation. This change is evident as employees increasingly consider the potential for integrating additional automated solutions into their workflows, recognising the benefit of freeing up time for more strategic tasks. The removal of tasks deemed low in value enables employees to concentrate on tasks that contribute to their perception of a meaningful job, thereby enhancing the overall significance they attribute to their work.

For instance, in the pricing department, employees have reduced time spent on repetitive data collection tasks and redirected this time towards in-depth data analysis and decision-making processes. By automating routine data collection, RPA empowers employees to focus on activities that enhance their cognitive engagement. When employees perceive these benefits, they begin to contemplate the broader deployment of RPA for tasks that they deem to impede or restrict the meaningfulness of their work. Therefore, while RPAs currently have a limited impact on job perceptions, employees foresee potential future expansions in RPA usage that could significantly alter their roles and workflows.

These findings appear to align with Afiouni and Pinsonneault (2022)'s description of cognitive crafting following technological changes. As employees' cognitive crafting begins with delegating tasks to technology, this prompt shifts in responsibilities and roles between technology and employees. Employees modify their perceptions of their overall job, expanding their roles based on desired work outcomes, which in the context of this research entails enlarging their scope and making their job more interesting and meaningful. The study also reveals limited concerns over job displacement by RPAs, with respondents emphasising the role of RPAs as tools rather than replacements. These findings contrast with those of Buonocore et al. (2019), who found that employees tend to engage in cognitive crafting when faced with moderate job insecurity. In contrast, employees in this study engage in positive cognitive crafting of the technology, envisioning its further implementation as a positive development and expressing no fear of job loss.

This thesis also contributes new insights into the work characteristics outlined by Hackman and Oldham (1976)'s job characteristics model, exploring how automation technologies can influence these dimensions. Specifically, the findings highlight how automation implementation impacts the meaningfulness of work, one of the three fundamental aspects leading to intrinsic



motivation according to Hackman and Oldham. According to their model, the meaningfulness of work derives from three core job dimensions: skill variety, task identity, and task significance.

Firstly, skill variety appears redefined within the context of RPA. Employees engage in task crafting following automation implementation, moving from repetitive, mundane tasks to more analytical and strategic responsibilities. This transition enables them to engage in tasks that challenge and expand their skills and abilities, aligning with Hackman and Oldham's proposition that meaningful work involves the adept application of diverse skills.

Secondly, automation reshapes task identity as employees can assume more comprehensive and impactful roles within their organisations. By automating routine tasks, employees gain clearer visibility into the direct outcomes of their efforts, fostering a stronger sense of task identity and personal satisfaction.

Thirdly, regarding task significance, employees perceive RPA as enhancing the accuracy and quality of their work, thereby making a greater contribution to the overall organisation. This perception resonates with Hackman and Oldham's perspective that task significance arises from contributing to organisational effectiveness and goals.

These insights underscore how automation technologies can reshape job characteristics, influencing employees' intrinsic motivation. It is crucial to note that different types and scopes of automation may lead to varying outcomes. The extent of automation implementation and the specific tasks automated could influence employees' perception of work meaningfulness and intrinsic motivation in different ways.

### **Limitations and Future Research**

To comprehensively address the current findings and pave the way for future advancements, it is essential to explore both the limitations encountered in this study and avenues for further research.

Firstly, the study primarily focused on a scenario where RPA implementation was confined to a limited set of tasks, which, according to respondents, constituted only a minor fraction of their overall workload. Consequently, the findings may be biased, as outcomes could vary significantly in environments where a larger proportion of tasks are automated, potentially leading to more substantial impacts on job crafting. Moreover, perceptions of the technology itself might differ under such conditions. Future research could benefit from examining cases where RPA is deployed

more extensively across job functions. This could be particularly insightful in sectors like banking, where automation could have broader implications (da Silva Costa et al., 2022).

Additionally, the study relied on interviews conducted up to two years post-implementation of the technology. Consequently, respondents' perceptions of changes in their work practices may have been underestimated. Changes could have occurred unconsciously, and some may have been forgotten over time since the initial implementation. Therefore, a longitudinal study that combines interviews with observations conducted both before and after RPA implementation would offer a more precise and comprehensive understanding of the actual changes resulting from RPA adoption.

Another notable limitation pertains to the respondents' varied levels of understanding regarding RPA, including its definition, functionalities, and scope of application. During the interviews, it became evident that not all participants possessed a comprehensive grasp of what RPA entails and how it operates within their organisational context. This lack of clarity could potentially affect the accuracy and depth of their responses regarding the impact of RPA on their roles and workflows. Future research would benefit from conducting preliminary sessions to ensure respondents have a consistent understanding of RPA terminologies and functionalities.

Lastly, the interviews were conducted in English, although the majority of respondents did not have English as their native language. Several participants expressed difficulty in articulating their thoughts precisely due to the language barrier. Consequently, certain aspects may have been omitted or inadequately formulated, potentially leading to inaccuracies in reflecting participants' true perspectives. The researcher observed that respondents whose native language was English tended to communicate more effectively, possibly benefiting from a more specialized vocabulary related to technology. Future studies could enhance accuracy by conducting interviews exclusively in the respondents' native languages, thereby ensuring more precise and comprehensive data collection.

### **Practical Implications**

The obtained results of this thesis can help employees and managers alike to grasp better the implications following the implementation of automation technologies such as RPA's.

The implementation of RPA appears to facilitate task crafting among employees, enabling them to shift from mundane tasks to more analytical and strategic responsibilities. Organisations can capitalise on this tendency towards task crafting by encouraging employees to reshape their

roles actively post-automation. Simultaneously, given the expansion-focused nature of job crafting that ensues, by actively seeking opportunities to enhance their creative and analytical skills, employees can align their roles more closely with their strengths and interests, thereby enriching their role within the organisation. Moreover, organisations can support employees in developing these creative and analytical skills, which are increasingly critical as employees engage more deeply in tasks requiring complex problem-solving and strategic decision-making. By providing training opportunities, mentorship, and resources tailored to developing these skills, organisations can enable employees to effectively leverage the opportunities presented by automation.

Additionally, policymakers can consider several practical implications to guide the efficient adoption and integration of automation technologies across diverse sectors. For instance, one initiative involves developing guidelines that encourage a balanced approach to automation. Policymakers should emphasize supporting initiatives that enable employees to proactively reshape their roles through task crafting. By promoting frameworks that facilitate such transitions, such as allowing employees to focus more on analytical and strategic responsibilities, policymakers can foster environments where automation enhances rather than replaces human potential.

RPA represents a significant opportunity for enhancing job roles among employees by automating manual and repetitive tasks. Contrary to concerns about job redundancies, RPA allows employees to undertake more expansive responsibilities without a corresponding increase in their workload. For individuals seeking to move away from monotonous tasks towards more meaningful work, RPA offers a viable solution. Additionally, for managers aiming to broaden their teams' activities and scope, RPA can facilitate this expansion without imposing additional workload or stress; rather, it may alleviate such pressures.

While RPA offers significant advantages in terms of efficiency and workload management, concerns regarding the accuracy and reliability of RPA outputs are valid and must be addressed by organisations. Ensuring the accuracy of automated processes is crucial, especially in tasks that impact critical business functions such as compliance, reporting, and customer service. To address these concerns, organisations should continuously monitor its operations thereafter. This proactive approach helps identify and rectify any discrepancies or errors promptly, ensuring that RPA outputs align closely with expected outcomes. Transparency plays a pivotal role in mitigating concerns about RPA. Providing clear insights into how automation tasks are executed, what data is

processed, and how decisions are made enhances understanding and builds confidence among stakeholders.

Finally, RPA has prompted employees to reconsider their roles and embrace further automation opportunities positively. There is a readiness to explore additional automated solutions for repetitive tasks, indicating a shift towards a more technology-integrated workplace mindset. This cognitive shift prepares employees and organisations for future technological advancements. There is potential in leveraging employees' acceptance of digital solutions by providing opportunities to share ideas and disseminate more information about the technology they are using and how its utilization could be enhanced. This approach nurtures bottom-up engagement within the organisation. Sharing success stories, conducting training sessions, and organising seminars to share knowledge on these technologies could prove invaluable in assisting employees to better identify suitable business processes for RPA.

## **Conclusion**

Finally, this case study sheds light on how employees engage in job crafting when faced with automation technologies. The study primarily highlights task crafting and cognitive crafting. Expansion-focused task crafting is evident as employees adjust their responsibilities, using RPA to streamline mundane tasks and allocate more time to analytical and strategic activities. This proactive approach aligns with strategies to optimise roles amidst technological changes, as employees modify, add, remove, and emphasise tasks to enhance job meaningfulness and efficiency. In contrast, relational crafting shows limited change, with RPA perceived as enhancing task efficiency without significantly altering interpersonal dynamics. Moreover, cognitive crafting emerges as employees embrace RPA positively, foreseeing further automation to improve strategic tasks and broaden job roles, thereby attributing greater significance to their work. These insights suggest that while RPA initially focuses on task optimisation, it also encourages employees to redefine their roles and embrace technological advancements with optimism for future improvements. This research offers new insights into how automation shapes workers' job design and paves the way for future research. Additionally, it provides organisations and employees with a better understanding of how to leverage the benefits of automation technologies.

### Reference list

Afiouni, R. & Pinsonneault, A. (2022). Ripples of Change – An AI Job Crafting Model for Human-in-Control. *The 55th Hawaii International Conference on System Sciences*, Hawaii. <https://hdl.handle.net/10125/79969>

Buonocore, F., Gennaro, D., Russo, M., & Salvatore, D. (2020). Cognitive job crafting: a possible response to increasing job insecurity and declining professional prestige. *Human Resource Management Journal*, 30(2), 244–259. <https://doi.org/10.1111/1748-8583.12270>

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>

Bruning, P. F., & Campion, M. A. (2018). A role-resource approach-avoidance model of job crafting: A multimethod integration and extension of job crafting theory. *Academy of Management Journal*, 61(2), 1–24. <https://doi.org/10.5465/amj.2015.0604>

Chen, F., & Li, R. (2024). Improvement and replacement: the dual impact of automation on employees' job satisfaction. *Systems*, 12(2), 46–46. <https://doi.org/10.3390/systems12020046>

da Silva Costa, D. A., & Mamede, H. S. & da Silva, M. M. (2022). Robotic Process Automation (RPA) Adoption: A Systematic Literature Review. *Engineering Management in Production and Services*. 14. 1-12. [10.2478/emj-2022-0012](https://doi.org/10.2478/emj-2022-0012).

de Beer, Leon T, Tims, Maria, & Bakker, Arnold B. (2016). Job crafting and its impact on work engagement and job satisfaction in mining and manufacturing. *South African Journal of Economic and Management Sciences*, 19(3), 400-412. <https://dx.doi.org/10.17159/2222-3436/2016/v19n3a7>

Demerouti, E., Soyer, L. M. A., Vakola, M., & Xanthopoulou, D. (2020). The effects of a job crafting intervention on the success of an organizational change effort in a blue-collar work environment. *Journal of Occupational and Organizational Psychology*, 94(2), 374–399. <https://doi.org/10.1111/joop.12330>

Detwiler, B. (n.d.). 5 Examples of RPA in action. Celonis. Retrieved June 23, 2024, from <https://www.celonis.com/blog/5-examples-of-rpa-in-action/>

DKM Customs, (n.d). Commodity codes in Belgium and the Netherlands. Retrieved June 26, 2024, from <https://dkm-customs.com/en/useful-documents/commodity-codes-for-belgium-and-the-netherlands/>

Fernandez, D., & Aman, A. (2021). The Influence of Robotic Process Automation (RPA) towards Employee Acceptance. *International Journal of Recent Technology and Engineering*, 9(5), 295-299. 10.35940/IJRTE.E5289.019521

Gerovitch, S. (2003). Automation. 122-126.

Hackman, J.R. & Oldham, G.R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16, 250–279.

Hasgall, A., & Ahituv, N. (2018). Implementing continuous adaptation to technology innovation in complex adaptive organizations. *Journal of High Technology Management Research*, 29(1), 35–45. <https://doi.org/10.1016/j.hitech.2018.04.004>

Khogali, H. O. & Mekid, S. (2023). Findings on technology reported by investigators at king fahd university of petroleum and minerals (the blended future of automation and ai: examining some long-term societal and ethical impact features). *Journal of Engineering*, 781, 781–781.

Klaudia, S.-K., & Csaba, K. (2023). How job crafting is related to the individual readiness to organizational change. *Heliyon*, 9(4). <https://doi.org/10.1016/j.heliyon.2023.e15025>

Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2021). Digital Transformation: An Overview of the Current State of the Art of Research. *Sage Open*, 11(3). <https://doi.org/10.1177/21582440211047576>

Knott, E., Rao, A.H., Summers, K. & Teeger, C. (2022). Interviews in the social sciences. *Nat Rev Methods Primers* 2(73), 1–15. <https://doi.org/10.1038/s43586-022-00150-6>

Lazazzara, A., Tims, M., & de, G. D. (2019). The process of reinventing a job: a meta-synthesis of qualitative job crafting research. *Journal of Vocational Behavior*, (2019). <https://doi.org/10.1016/j.jvb.2019.01.001>

Li, J., Yang, H. & Weng, Q. (2023). How different forms of job crafting relate to job satisfaction: The role of person-job fit and age. *Current Psychology* 42, 11155–11169. <https://doi.org/10.1007/s12144-021-02390-3>

Lichtenthaler, P. W., & Fischbach, A. (2018). A meta-analysis on promotion- and prevention-focused job crafting. *European Journal of Work and Organizational Psychology*. <https://doi.org/10.1080/1359432X.2018.1527767>.

Madakam, S., Holmukhe, R. M., & Kumar Jaiswal, D. (2019). The Future Digital Work Force: Robotic Process Automation (RPA). *JISTEM: Journal of Information Systems and Technology Management*, 16(), e201916001. <https://doi.org/10.4301/S1807-1775201916001>

Masayuki, M. (2017). Who Are Afraid of Losing Their Jobs to Artificial Intelligence and Robots? Evidence from a Survey; *RIETI Discussion Paper Series* 17-E-069; Global Labor Organization: Essen, Germany.

Microsoft Support. (n.d.). VLOOKUP function. Retrieved June 23, 2024, from <https://support.microsoft.com/en-us/office/vlookup-function-0bbc8083-26fe-4963-8ab8-93a18ad188a1>

Beno, M. (2020). Four Factors that will shape the Future of Work. *Journal on Advances in Theoretical and Applied Informatics*. 5. 10.26729/jadi.v5i1.3114.

Nam, T. (2019). Technology usage expected job sustainability, and perceived job insecurity. *Technological Forecasting & Social Change*, 138, 155–165. <https://doi.org/10.1016/j.techfore.2018.08.017>

Okoye, C. I., Truong, D. & Warmate, F. (2022). Robotic Process Automation and its effect on Employees' Attitude and Behaviour. 10.13140/RG.2.2.13856.25600.

Peeters, M.C.W. & Plomp, J. (2022). For Better or for Worse: The Impact of Workplace Automation on Work Characteristics and Employee Well-Being. IntechOpen. doi: 10.5772/intechopen.102980

Perez, F., Conway, N. & Roques, O. (2022). The Autonomy Tussle: AI Technology and Employee Job Crafting Responses. *Relations industrielles / Industrial Relations*, 77(3). <https://doi.org/10.7202/1094209ar>

Petrou, P., Demerouti, E., & Schaufeli, W. B. (2018). Crafting the change: the role of employee job crafting behaviors for successful organizational change. *Journal of Management*, 44(5), 1766–1792. <https://doi.org/10.1177/0149206315624961>

Schwabe H. & Castellacci F. (2020). Automation, workers' skills and job satisfaction. *PLoS ONE* 15(11): e0242929. <https://doi.org/10.1371/journal.pone.0242929>

Seawright, J., & Gerring, J. (2008). Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options. *Political research quarterly*, 61(2), 294–308. <https://doi.org/10.1177/1065912907313077>

Simmler, M., & Frischknecht, R. (2020). A taxonomy of human–machine collaboration: capturing automation and technical autonomy. *Ai & Society: Journal of Knowledge, Culture and Communication*, 36(1), 239–250. <https://doi.org/10.1007/s00146-020-01004-z>

Siderska, J. (2021). The adoption of robotic process automation technology to ensure business processes during the covid-19 pandemic. *Sustainability*, 13(14), 8020–8020. <https://doi.org/10.3390/su13148020>.

Tims, M. & Bakker, A. B. (2010). Job crafting: Towards a new model of individual job redesign. *SA Journal of Industrial Psychology*, 36(2), e1–e9. <https://doi.org/10.4102/sajip.v36i2.841>

UbiAI. (2023, May 4). *Intelligent Document Processing (IDP) vs. Robotic Process Automation (RPA): Comparative Study for Business Process Automation*. <https://ubiai.tools/comparing-idp-and-rpa-for-business-automation-ubiai/#:~:text=IDP%20is%20generally%20more%20complex,achieved%20with%20IDP%20and%20RPA>.

van der Aalst, W.M.P., Bichler, M. & Heinzl, A. (2018). Robotic Process Automation. *Business & Information Systems Engineering*, 60, 269–272. <https://doi.org/10.1007/s12599-018-0542-4>

Villajos, A., García-Ael, C. & Topa, G. (2019). Job Crafting among Labor Union Representatives: Its Impact on Work Engagement and Job Satisfaction. *Social Sciences*, 8(20). <https://doi.org/10.3390/socsci8010020>

Weseler, D. and Niessen, C. (2016). How job crafting relates to task performance. *Journal of Managerial Psychology*, 31(3), 672-685. <https://doi.org/10.1108/JMP-09-2014-0269>

Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a Job: Revisioning Employees as Active Crafters of Their Work. *The Academy of Management review*, 26(2), 179–201. <https://doi.org/10.2307/259118>



## Appendix

### Appendix A: Interview guide

<b>Intro questions</b>	<p>Can you briefly describe your role within the organisation?          How long have you been with the company and how long have you been working with RPA's?          How would you define RPA?          How do you feel about the changes brought about by RPA in your work environment?          What was the process like during the implementation of RPA?</p> <ul style="list-style-type: none"> <li>• Can you describe the nature of the changes that occurred?</li> <li>• How did the decision to implement RPA come about?             <ul style="list-style-type: none"> <li>○ Was it primarily driven by employee needs, organizational goals, or a mix of both?</li> </ul> </li> </ul>
<b>Job Crafting and RPA's</b>	<p>How do you perceive the implementation of RPA in your daily work tasks?          What has RPA change in your work in general?</p> <ul style="list-style-type: none"> <li>○ What are the positive things that RPA has brought to your work? What are the negative things?</li> <li>○ Do you feel that the introduction of RPA has made you more efficient in your work, or has it had the opposite effect? Can you describe situations when using RPA feels counterproductive?</li> </ul>
<b>Modifying Task Boundaries</b>	<p>Can you describe conscious any modifications you've made to the type or number of activities you perform since the introduction of RPA?</p> <ul style="list-style-type: none"> <li>○ What are the new ways of working of your job?</li> <li>○ With the free time that RPA has allowed you to have, what does this allows you to do? What kind of tasks? Is it more analytical/creative/etc.?</li> <li>○ How do you use the results/output of RPA's? What kind of tasks do you do more often?</li> <li>○ Have you taken on any new tasks or delegated existing ones due to RPA? If so, how has this impacted your workload and job satisfaction?</li> <li>○ How do you prioritize tasks differently now compared to before RPA implementation?</li> <li>○ Can you share specific examples of how you've redesigned or reorganized your tasks?</li> <li>○ What factors influence your decision to modify your task?</li> </ul>
<b>Modifying Relationship Boundaries</b>	<p>Have you noticed any changes in your interactions with colleagues or supervisors since the introduction of RPA?</p> <ul style="list-style-type: none"> <li>○ If they have, how have your colleagues reacted to your output? Do they realize you're able to deliver more? Do they complain?</li> <li>○ Do you communicate with new stakeholders?</li> <li>○ Have you consciously sought to develop new relationships or strengthened existing ones in response to RPA? If yes, could you elaborate?</li> </ul>
<b>Cognitive Framing of Jobs</b>	<p>How would you describe your perception of your role and tasks before and after RPA implementation?</p> <ul style="list-style-type: none"> <li>○ Is your job more interesting?</li> <li>○ Have you experienced any shifts in how you approach or think about your work because of RPA?</li> <li>○ Do you feel like the definition or how you would describe your job, has changed since the implementation of RPA's?</li> </ul>

	<ul style="list-style-type: none"><li>○ If it has, in what ways do you think RPA has affected your motivation and engagement with your work?</li></ul>
<b>Role-Based Perspective and Motivations</b>	<p>Do you feel a sense of control over your work tasks? Has that changed since RPA implementation? Why or why not?</p> <ul style="list-style-type: none"><li>○ Have you actively sought to develop new skills or adapt existing ones to align with RPA technology? If yes, could you provide examples?</li><li>○ How do you perceive the impact of RPA on your career progression and professional development within the organization?</li></ul>

Is there anything else you would like to share about your experience with RPA?

## Appendix B: Codebook

<b>Code</b>	<b>Sub codes</b>	<b>Description</b>	<b>Example</b>
<b>Task Crafting</b>	Time saving	Refers how the automation technology has enabled to save time.	<i>Certainly, time related, yeah. Time related that you that you can spend. Time to do new and other things.</i>
	Task reallocation	Refers to the tasks workers can now undertake due to the time saved, as well as the nature of those tasks.	<i>To me in my function it allows me to put more focus on the relation I have with the BU's and well. We, as a group pricing department, can put more focus on what happens within the group and be more present at group level and less having to focus on well those kinds of operational and administrative tasks and focus on more value.</i>
	Work-life balance	Refers to interviewees being able to maintain more regular working hours.	<i>A lot of people are a bit overloaded, so the first thing they will do, they will just have a little bit of oxygen.</i>
	Non-value-added tasks	Refers to the replacement of tasks considered 'non-value-added' by technology, which are also described as mundane, repetitive, or administrative.	<i>It's so convenient that I or my colleagues do not need to... Well, invest time in validating VAT numbers. [...] They can use their time for more added value tasks.</i>
	Interesting job	Refers to roles becoming more engaging as technology assumes tasks previously considered uninteresting.	<i>It helps you in the sense that that [...] you do not need to make repetitive tasks, that do not bring you also a step forward or make your job more interesting.</i>
	Performance	Refers to technology's role in reducing errors and enhancing job execution effectiveness	<i>The quality of our work is better.</i>
	Reliance	Refers to tasks depending on the output of technology.	<i>So, you see, so where, are we dependent? Yes. And at the same time, we are really happy to have it because if it is not working anymore, we are complaining. We are already saying we miss it.</i>
	<b>Relational Crafting</b>	Technology as colleague	Refers to viewing the technology as another member of their team
Team expansion		Refers to whether the addition or absence of another member within the team is needed.	<i>The time saving is reallocated to other tasks, new tasks usually. Or to not grow the team. I mean we can handle more activities than we used to do before, without the RPA.</i>

<b>Cognitive Crafting</b>	Consistent interactions	Refers to the unchanged dynamics of relationships following the introduction of the technology.	<i>Does it change the collaboration or the relationship? Not that much, because [...] we know each other very well. So, no. On the RPA in all case, didn't change the behaviour. Relationship and the behaviours among the team members. That's really not.</i>
	Technology expansion	Refers to the introduction of additional technology to automate additional tasks.	<i>But other task like creating a technical data sheet and so on, documents. That should be also automatic.</i>
	Role development	Refers to how individuals' roles have evolved following the implementation of technology.	<i>They're changing their job. From creating reports to analysing reports because, in the past, business control was a lot creating reports, creating a lot of excels. Yeah, well, now they need to analyse and come with conclusions and actions.</i>
	Robot as tool	Refers to the integration of technology as a functional tool in their work.	<i>It's just a tool, but it doesn't assess what you upload or input in the platform. So, you still have that human intelligence that can give that decision link.</i>
	Human replacement	Refers to technology replacing human labour.	<i>This is looking for RPAs. I really don't see that as replacing people you know or get rid of or reducing the teams, the knowledge remains into human beings' expertise.</i>
	Low impact	Refers to technology minimally replacing tasks, resulting in limited overall impact.	<i>The RPAs are doing a great job, but it's a very tiny, small thing that they do compared to the other work that needs to be done.</i>
<b>Other</b>	Functional usage	Refers to interviewees' partial understanding or confusion about the technology's functionality.	<i>I'm not sure that people always understand what the RPA</i>
	Technology case	Refers to interviewees discussing the technology's role in their work, detailing which tasks it has replaced and describing their previous responsibilities.	<i>The R&amp;D manager creates a new formula, he he sent it to me. Yeah. And then I followed the steps for creating a new recipe in in our BLM system. So, all the information is already done by the robot. And then I receive an e-mail from the robot and if there is a mistake somewhere or some information, the information is missing then I can see directly what I have to adapt or correct.</i>
	Advantages	Refers to advantages or benefits of the technology.	<i>For me, I prefer everything quickly, efficient and all those steps from the 90s new time, new way of working. And I I prefer that, yes.</i>

Disadvantages	Refers to the drawbacks or disadvantages of the technology.	<i>Disadvantage is more like, and it gives errors. And that happens based on the the amount of data. If if we pull out more data then yeah, it's. We need to wait sometimes more than a day before itself or or the person we need is on holiday or out of office, or that's the disadvantage that we are dependent on someone else.</i>
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