“ChatGPT has been released like a huge tsunami wave” -

Employees' Experience on Job Performance with ChatGPT

By

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Abstract

Title	"ChatGPT has been released like a huge tsunami wave" – Employees' Experience on Job Performance with ChatGPT
Course	BUSN49, Degree Project in Managing People, Knowledge and Change
Authors	Helena Rakel Óskarsdóttir & Sophia Schulte
Supervisor	Stephan Schaefer (PhD), Lund University, Sweden
Purpose	The primary purpose of our study is to get a better understanding of the employees' experience of their job performance with the emergence of ChatGPT. This includes taking a socio-technical perspective to explore the employees' perspective with using this technology.
Methodology	The study was carried out using a qualitative research method, employing an interpretative perspective and an abductive research approach. We adopted a cross-case approach to gain an understanding of ChatGPT's emergence from the employee perspective and conducted ten semi-structured interviews via Zoom.
Theoretical Framework	Our theoretical framework delves into the existing body of literature on AI, particularly Natural Language Processing, as well as the implications of deploying AI. By synthesizing the current literature on job performance, we developed a comprehensive and cohesive definition. Lastly, we examined the socio-technical perspective, emphasizing its significance in understanding employees' experiences of job performance within ChatGPT's era.
Contributions	This study contributes to the existing literature on employees' job performance with the emergence of ChatGPT. By incorporating the valuable perspective of employees, we enrich the ongoing discourse surrounding AI implementation in organizations. Through our investigation into employees' experiences of job performance in relation to ChatGPT, we have discovered insightful findings that provide valuable insights into the potential impact of this emerging technology in the future.
Keywords	AI, ChatGPT, Job Performance, Productivity, Job Security

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Helena Rakel Óskarsdóttir & Sophia Schulte
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1. Introduction

1.1. Background

"ChatGPT is not an author, but part of the latest all-changing industrial revolution X.0"
(Romeike, 2023)

Artificial intelligence (AI) has become one of the most talked-about topics of the 21st century due to the significant impact it has on businesses, work, and everyday life, some even call it the 'Fourth Industrial Revolution' (Syam & Sharma, 2018). Some of AI technologies being used include Machine Learning, Deep Learning and Natural Language Processing (NLP) (Arulkumaran et al., 2017; Thorp, 2023). One survey performed by Deloitte even suggests that all these contemporary AI technologies are being used or will be within a year by 95% or more of large adopters of AI (Deloitte, 2021).

One of the most popular AI technologies being used today is a chatbot called ChatGPT, which has evolved to become the fastest growing AI chatbot in history (Duarte, 2023). ChatGPT is used by over 100 million users, generating 1 billion visitors per month (Duarte, 2023). It is a powerful NLP system, using a GPT-3 deep learning model, it is trained on a large dataset of conversations and designed to generate human-like conversations by understanding the context of a conversation and generating appropriate responses including the ability to generate responses in multiple languages, such as English, Spanish, French, and German, and in different styles, such as formal, informal, and humorous (Deng & Lin, 2023). The chatbot provides a conversation-like experience where users can input a query, or prompt, in plain natural language, and ChatGPT responds with a natural-sounding answer to the prompt, usually within a second (Lee, Bubeck & Petro, 2023). Organizations are increasingly using conversational technologies, such as ChatGPT, with human-like attributes, such as personality and form, to enhance customer experiences, speed up processes, increase efficiency by automating conversations and generate high quality content, freeing up human workers to focus on more complex and strategic tasks (Deng & Lin, 2023; Lankton, McKnight & Tripp, 2015; Mattas, 2023). Yet, with the increased usage of ChatGPT, it raises concerns about spreading misinformation and the influence of ChatGPT on the workforce, as they

could potentially automate various language-based jobs, which could result in a decrease in employment opportunities (Deng & Lin, 2023; Mattas, 2023). Further explanation on ChatGPT can be found in Chapter Two.

The introduction of various types of AI has brought about an array of challenges due to changes it causes in job roles and tasks, which need to be addressed to ensure the effective implementation of AI in organizations (Braganza, Chen, Canhoto & Sap, 2021). Specifically, now when chatbots like ChatGPT become more present in organizations and employees' daily work.

The rapid progress of AI technology has ushered in a new era of business research across various fields. Studies show that many possible tensions can evoke through the use of AI in the workplace, possible examples include but are not limited to the tension it brings to working with AI for automating processes (Benbya, Pachidi & Jarvenpaa, 2021), managing human-AI interactions such as humanlike and machinelike conversations (Lankton, McKnight & Tripp, 2015), and the substitution of occupations and tasks (Frey & Osborne, 2017). Implications for organizations employing AI systems have also been studied, highlighting the need for effective deployment and management (e.g. Brynjolfsson & Mitchell, 2017; Makarius, Mukherjee, Fox & Fox, 2020; Sharma & Biros, 2021; Tschang & Almirall, 2021).

AI in organizations offer endless opportunities for both employees and the organization, increasing efficiency and improving internal processes (Hughes, Robert, Frady & Arroyos, 2019). Applications such as ChatGPT offer the opportunity to assist in daily tasks, freeing up time for employees to focus on other things and improve job performance (Tschang & Almirall, 2021). In our research, we have defined job performance to ensure a consistent analysis is conducted, further elaboration on this synthesis can be found in Chapter Two:

"Job performance is the extent to which employees deliver a record of qualitative outcomes within a specific time frame, while actively exploiting career development opportunities to eventually contribute to organizational goals."

1.2. Problem Statement

Corporations, are progressively incorporating AI technologies into their operations, yet the adoption of AI systems in organizations is a complex and ongoing process that requires careful planning, management, and collaboration across different parts of the organization (Benbya, Davenport & Pachidi, 2020). Kurup and Gupta (2022) identify several factors that influence the adoption of AI in organizations, including the availability of data, the cost and complexity of implementation, the organization's strategic priorities and culture, the regulatory and legal environment, and the readiness of the workforce to adopt and adapt to new technologies. Despite this complexity, organizations are increasingly realizing the opportunities it provides and have implemented AI in their internal processes such as to manage employees (Hughes, Robert, Frady & Arroys, 2019). Studies have shown that if organizations are able to effectively harness the power of AI, they will be better positioned to gain a competitive advantage in their respective markets (Bai, 2011; Nascimento & Bellini, 2018; Reim, Åström & Eriksson, 2020). More specifically, AI can help organizations make better decisions by analyzing large amounts of data and identifying patterns and insights that might be difficult or impossible for humans to discern (Reim, Åström & Eriksson, 2020). Additionally, the implementation of AI facilitates the process of automating tasks that are deemed repetitive and laborious in nature, thus freeing up employees to focus on more complex and strategic work (Bai, 2011).

Areas where AI technologies find applications in organizations are recruitment, sales, marketing, customer support and accounting (Arslan et al., 2022; Dekimpe, 2020; Dogru & Keskin, 2020; Hasan, 2022; Hughes et al., 2019; Pantano & Pizzi, 2020; Syam & Sharma, 2018; Verma, Sharma, Deb & Maitra 2021; Wilson, Lee, Saechao, Hershenson, Scheutz & Tickle-Degnen, 2017). In general, AI is widely utilized in assisting with daily tasks, from sending emails to automate processes to writing reports (Maedche, Legner, Benlian, Berger, Gimtpel, Hess, Hinz, Morana & Söllner, 2019). AI has also found extensive application in the field of writing code, improving software development efficiency by providing users with correct and complete codes for any query they put in (Puri, Kung, Janssen, Zhang, Domeniconi, Zolotov, Dolby, Chen, Choudhury, Decker, Thost, Buratti, Pujar, Ramji, Finkler, Malaika & Reiss, 2021).

As can be seen in almost every department of an organization, AI is being utilized to improve efficiency and automate tasks and processes (Hughes et al., 2019). Furthermore, it is expected to improve organizational, and employee job performance, increasing the likelihood for organizations to survive in the era of rapid technological advancement (Benbya, Pachidi & Jarvenpaa, 2021). In fact, organizations are encouraging employees to utilize chatbots like ChatGPT more and more to assist with their daily tasks (Benbya, Pachidi & Jarvenpaa, 2021). Yet, with the increasing use of ChatGPT in business organizations around the world today, understanding its impact on employees' experiences of their own job performance becomes essential. In their 2017 study, Brynjolfsson and Mitchell outlined the necessary steps for organizations to deploy AI effectively. However, as we see in this study and many others there is a lack of understanding of employee perspectives on the matter. Specifically, the recent trend of using ChatGPT to assist in daily tasks highlights the question of how employees experience their job performance with the emergence of ChatGPT (Katrak, 2022). As Hughes et al. (2019) state, little is known about how employees themselves view their job performance when using AI, such as ChatGPT. The reason why we were keen on investigating this phenomenon more extensively was because we wanted to gain insight from the perspective of the employees. We approached this phenomenon from a socio-technical point of view. Since, by considering the interactions between technology, people, and the social and organizational environment in which they function, a socio-technical approach improves the evaluation of job performance perceptions. This approach is further explained in Chapter Two.

1.3. Research Purpose and Research Question

While some research has been done exploring the organization's interpretation of employee's job performance after implementing AI (e.g. Hughes et al., 2019; Wamba-Taguimdje, Fosso Wamba, Kala Kamdjoug & Tchatchouang Wanko, 2020); limited qualitative research exists that specifically outlines and explores employee experiences. Brynjolfsson and Mitchell (2017) have explained what is needed from organizations to ensure effective deployment of AI, yet our current understanding lacks insight into employee perspectives. Specifically, the recent trend of using ChatGPT to assist in daily tasks highlights the question of how employees experience this development (Katrak, 2022). Consequently, an unanswered gap remains surrounding how employees experience their job performance with the emergence of ChatGPT.

Additionally, our research aims to contribute to the existing literature by exploring the symbolic meanings of AI implementation, specifically ChatGPT, in the workplace from an employee perspective. Based on the available literature, there have been some qualitative studies conducted on the impact of AI on job performance and employee experiences. Our thesis aims to contribute to these ongoing debates by taking a socio-technical perspective and focusing on the symbolic meanings of job performance and the implementation of ChatGPT from the employee perspective. By doing so, we hope to shed light on how employees experience and navigate the changes brought about by the emergence of ChatGPT. This will add to the current literature by providing a more nuanced understanding of the relationship between ChatGPT and job performance, and by highlighting the importance of considering socio-technical factors in employee experience of their job performance in the age of AI.

Our research aims to contribute to the knowledge of employees' experience of their job performance in the era of ChatGPT. Our main objective is to get the voice of the employees in the current discourse of ChatGPT in organizations. While most of the studies conducted today look at the organizational point of view, we believe looking at the employee's point of view will provide us and the field with knowledgeable insights into what role ChatGPT plays. Our study aims at contributing to the existing literature regarding ChatGPT and job performance.

Based on the abovementioned and previous research, our research attempts to answer the following:

How do employees experience their job performance with the emergence of ChatGPT?

To address the aforementioned question and achieve the objective of our study, we will examine the employees' experiences of their job performance with the emergence of ChatGPT. Despite the significance of employee perception of their job performance in light of AI, previous research has overlooked this aspect and focused primarily on the organization's perception of employee performance. To bridge this research gap, we seek to explore the employees' viewpoints on their job performance with the emergence of ChatGPT.

1.4. Main Findings

Our study showed that employees generally have a positive attitude towards the emergence of ChatGPT. The participants expressed that the tool has helped them automate mundane tasks, resulting in experiencing increased efficiency. Additionally, they expressed that with the extra time that have gained with the help of ChatGPT, they anticipate having extra time for strategic or human-centric aspects of their work, hoping to generate more outcomes for their organizations and value to their customers. However, bringing in the IT productivity paradox, this might not necessarily be the case. Employees also expressed that they feel the pressure to stay relevant within their fields. This involves keeping up with the ever-evolving technology. Therefore, the extra time that they gain with increased efficiency might not generate more outcomes or value. Additionally, employees experience that the tool does not always generate correct outcomes, and therefore they need to further apply their critical thinking. Thus, we found that the employees feel that their prior skills and knowledge will still be needed in order to work optimally with ChatGPT. Consequently, employees did not express fear that ChatGPT might replace them in their current roles. This was an interesting find as it presents a contradiction. Although employees claim to be unafraid of job displacement caused by ChatGPT, they recognize the need to remain up to date in their field to avoid future job loss. This suggests a self-justification or autosuggestion behavior where employees rationalize their skills and knowledge to alleviate the discomfort of cognitive dissonance.

1.5. Thesis Outline

Our study is aimed at investigating employees' experiences of their job performance with the emergence of ChatGPT. To answer our research question, we have structured our thesis into six chapters. Chapter one provided an introduction to the research problem and outlined our research purpose. We have formulated a research question that we intend to answer through our study. Also, we have provided some of our main findings. In Chapter two, we have conducted an extensive literature review to provide a theoretical background to our study. We have analyzed and synthesized a broad range of existing literature related to AI, job performance and the socio-technical view. The third chapter presents our chosen methodology approach, which includes the cross-case study approach across multiple IT companies. We have explained the rationale behind our choice of this approach and discussed the data collection and analysis process. Chapter four provides an in-depth analysis of the empirical material we have collected. We have presented our data alongside our initial interpretations. In chapter five, we have discussed our empirical findings in the context of the literature review presented in chapter two. We have compared and contrasted our findings with existing research and highlighted areas of agreement and disagreement. Finally, in Chapter six, we have concluded our study by summarizing our main findings and highlighting their theoretical and practical implications. We have provided recommendations for further research on this matter and elaborated on the limitations of our study.

2. Literature Review

In recent years, AI became an increasingly prevalent topic in organizational research due to its potential to transform work processes and outcomes. This literature review aims to examine AI in general, NLP as a form of AI further elaborating on ChatGPT. Furthermore, we touch upon deployment implications of AI and the Technology Acceptance Model (TAM). While ChatGPT technology is relatively new, we will draw on the broader applications and deployment of AI systems in organizations as a foundation for our analysis. Our focus on employee perspectives is crucial, as they are often the end-users of AI systems in the workplace. Through a comprehensive review of the current literature on job performance, we establish a concise and relevant definition of job performance and explore the socio-technical view to gain insight into the employees' experiences. We will also briefly touch upon the link between AI implementation and job performance, despite the limited research available on this topic.

2.1. Artificial Intelligence

One cannot deny the significant increase in attention towards AI technologies, some even call it the 'Fourth Industrial Revolution' (Syam & Sharma, 2018). Where decision-making shifts from humans to machines (Makarius et al., 2020). Although the interest in AI has only peaked in recent years, the concept of AI in general was first introduced by McCarthy, Minsky, Rochester, and Shannon in 1955, who defined it as "the science and engineering of making intelligent machines" that can simulate every aspect of human intelligence (McCarthy, Minsky, Rochester & Shannon, 1955, p.2). Today, AI refers to the ability of a machine or computer system to perform tasks that require human intelligence, such as logical reasoning, learning, and problem solving (Morandín-Ahuerma, 2022). Nowadays, the main goal of AI is to develop computational agents that exhibit human-like intelligence and can communicate with humans (Bai, 2011). The main scientific goal of AI is to understand the principles that enable intelligent behavior in humans, animals, and artificial agents (Tecuci, 2012).

Now, AI has been instrumental in improving the efficiency of many processes and helping people perform complex tasks faster and more accurately (Morandín-Ahuerma, 2022). In fact, AI uses

general methods such as theorem proving, problem solving, and planning, with heuristic information guiding the search for solutions in large problem spaces (Tecuci, 2012). The importance of AI lies in its ability to alleviate human limitations and enable us to cope with the increasing challenges of globalization and the rapid evolution towards knowledge economies (Tecuci, 2012). Already, enterprises across the corporate world have been using AI-enhanced applications for complex problem-solving and decision-support techniques in real-time business applications (Reim, Åström & Eriksson, 2020).

2.1.1. Natural Language Processing

AI can be described as a comprehensive concept that encompasses a variety of diverse technologies, including Deep Learning, Machine Learning, and NLP, employ algorithms to analyze data, albeit at varying levels of complexity and abstraction (Reim, Åström & Eriksson, 2020). The advancements in these AI technologies have opened up new opportunities for businesses to automate processes, improve decision-making, and enhance customer experience (Benbya, Davenport & Pachidi, 2020).

NLP s a subfield of AI that enables computers to understand and interpret human language as it is written or spoken, and it has various applications, including speech recognition, text analysis, translation, and generation (Benbya, Davenport & Pachidi, 2020). Although the idea of artificial general intelligence, where AI systems can perform all tasks as well as humans, is still a futuristic concept, some AI programs such as GPT-3 are beginning to exhibit some aspects of general intelligence. (Benbya, Davenport & Pachidi, 2020). This program is a new deep learning-based natural language generation model, which is a combination of deep-learning and NLP, and used billions of words to train the program (Benbya, Davenport & Pachidi, 2020). An example of this type of program is ChatGPT (Thorp, 2023).

ChatGPT is another NLP model developed using a technique called Reinforcement Learning from Human Feedback (Thorp, 2023), which has gained considerable attention and discussion in the NLP community and other fields since its debut in November 2022 (Guo, Zhang, Wang, Jiang, Nie, Ding, Yue & Wu, 2023). Not only has ChatGPT gained a great deal of attention from scholars

it also has drawn a great deal of attention from organizations (Qin, Zhang, Zhang, Chen, Yasunaga & Yang, 2023).

Some scholars argue that ChatGPT can revolutionize the future of work and has a great deal of benefits (Guo et al., 2023). Such as, the rapid answers given by the chatbot can increase efficiency by automating conversations, saving time and resources, and allowing for faster conversations (Deng & Lin, 2023; Guo et al., 2023). Additionally, it has the potential to significantly reduce costs for businesses that rely on customer service chatbots, by generating human-like responses in real-time, reducing the need for costly human customer service representatives (Deng & Lin, 2023). Mattas (2023) highlights another benefit of ChatGPT, the ability to generate high-quality content, freeing up human workers to focus on more complex and strategic tasks.

Even though the benefits of ChatGPT sound promising, many scholars have concerns about the security of the chatbot, such as data confidentiality and the risk of adversarial attacks, in which an attacker attempts to manipulate the model by providing malicious inputs that cause it to produce incorrect or undesirable outputs (Deng & Lin, 2023; Mattas, 2023; Sallam, Salim, Barakat & Al-Tammemi, 2023). There is also a risk of ChatGPT being used to spread misinformation or propaganda and the potential for generating partial or incorrect content (Deng & Lin, 2023; Nicolescu & Tudorache, 2022; Sallam et al., 2023). According to Mattas (2023), there are also concerns regarding the influence of these models on the workforce, as they could potentially automate various language-based jobs, which could result in a decrease in employment opportunities. Furthermore, the chatbot could have the possibility of undermining critical thinking and communication abilities among employees (Sallam et al., 2023). The reason for this phenomenon could be that employees are excessively dependent on the chatbot, which makes them assume that the information provided by it is always true and correct (Sallam et al., 2023). Ultimately, this would decrease the ability of employees to critically assess the information. In general, the development of these chatbots could have implications on the way we interreact with technology, transforming the way we access and communicate information (Nicolescu & Tudorache, 2022).

Although there are obstacles to overcome, ChatGPT is a promising AI technology for automating conversations and improving one’s work. It is, however, important for businesses and

organizations to carefully consider these risks and implement appropriate measures to mitigate them when using ChatGPT or similar technologies (Deng & Lin, 2023). To accomplish this, a comprehensive understanding of the advantages and drawbacks of these models is necessary, and approaches and regulations should be established to minimize the dangers and encourage their ethical use (Mattas, 2023).

2.1.2. Deployment Implications of AI

As AI systems continue to find wider application in organizations, it becomes increasingly crucial to consider the potential implications of their deployment. In fact, the deployment of AI in organizations has significant implications for both employees and the organization itself. One of the major difficulties faced by organizations in implementing new technologies is comprehending the factors that influence the workforce's decision to accept or reject them (Abukhzam & Lee, 2011). The perception and attitude of the employees towards novel technology plays a crucial role in the successful implementation of such projects (Abukhzam & Lee, 2011). When employees believe that the new technology will enhance efficiency and reduce workload without jeopardizing their job security, they are more likely to adopt it (Morris, Venkatesh & Ackerman, 2005). However, if they perceive it as a potential threat to their employment prospects, they are more likely to resist its adoption (Abukhzam & Lee, 2011; Morris, Venkatesh & Ackerman, 2005).

Deploying an AI system requires a range of specialized skills and resources that may be limited (Benbya, Davenport & Pachidi, 2020; Mayer, Strich & Fiedler, 2020). These requirements can include integration with legacy systems and outdated infrastructure, modifications to business processes and organizational culture, retraining or upskilling of personnel, significant data engineering, and change management strategies (Benbya, Davenport & Pachidi, 2020). It is increasingly necessary for organizations to consider the implications of AI on the skills and roles of their employees, and to consider how to reskill and upskill their existing workforce to meet the demands of a changing workplace (Benbya, Davenport & Pachidi, 2020). This may involve hiring new employees with AI skills, but also retraining existing employees to the degree possible (Lee, Davari, Sing & Pandhare, 2018; Sikdar, 2018; Wamba-Taguimdje et al., 2020; Di Francescomarino & Maggi, 2020). For the organization, factors such as top management support and firm size are critical in influencing the deployment of AI systems (AlSheibani, Cheung &

Messom, 2018). The adoption of AI promises significant economic benefits for organizations, but many struggle to unlock its full potential (Pandl, Teigeler, Lins, Thiebes & Sunyaev, 2021). Younis and Adel (2020) suggest that incorporating different AI techniques in organizations can promote collaborative AI-human decision making, leading to more efficient and effective decision-making processes. It is clear that the deployment of AI technologies in organizations requires various skills and will have an impact on the entire workforce.

While there is a debate about whether AI will result in job creation or job destruction, it is clear that the introduction of AI-enabled technologies will have a significant impact on the workforce (Acemoglu & Restrepo, 2016, 2017; Autor & Salomons, 2018; Brynjolfsson & Mitchell, 2017; DeCanio, 2016; Decker, Fischer & Ott, 2017; Howard, 2019). AI may lead to increased automation of mundane tasks and render certain human skills obsolete, increasing fear among employees to be replaced by machines (Brynjolfsson & Mitchell, 2017; Tschang & Almirall, 2021). In the study of Gamkrelidze, Zouinar & Barcellini (2021) the employees echoed the idea that AI can automate mundane tasks and some confirmed the fear of being replaced by machines. Interestingly, the introduction of AI systems has led participants to envision various potential transformations in their work, with some even believing that they must adopt these systems and modify their work activities in order to preserve their jobs (Gamkrelidze, Zouinar & Barcellini, 2021). It is, therefore, necessary to consider the skills and relationships humans will need to develop to adjust to changing work environments in the context of increasing AI automation of work tasks (Brynjolfsson & Mitchell, 2017). The introduction of AI also raises issues of how to manage the uncertainties associated with human-machine interactions with AI-enabled systems, particularly when it comes to assigning accountability for errors or conflicts (Howard, 2019).

To continue, Malik, Tripathi, Kar and Gupta (2021) establish a qualitative hierarchy of prominent factors constituting unintended consequences of AI deployment in organizations, including potential risks of data leaks and security breaches, drastic changes resulting from digital transformations, and job risk and insecurity brewing in the employee psyche. On the other hand, the deployment of AI can also have positive impacts, including work-related flexibility and autonomy, creativity and innovation, and overall enhancement in job performance (Malik, Baig & Manzoor, 2020). Acemoglu and Restrepo's (2016) add that the number of outputs, i.e., quantity,

increases when certain processes are automated by AI. This is intriguing because it suggests that an increase in outputs may lead to an overall improvement in job performance, particularly if output is a key measure of high performance.

The deployment of AI in organizations has both positive and negative implications for employees and the organization itself. Although there is a discussion about whether job creation or job destruction will be more prevalent, the implementation of AI-powered technologies will undeniably have a substantial influence on the labor force. To unlock the full potential of AI, organizations need to carefully consider the potential benefits of AI implementation and develop effective AI strategies that align with their organizational goals and objectives. Having examined the deployment implications of artificial intelligence, it is crucial to delve deeper into employees' perceptions and acceptance of ChatGPT; hence, we investigate the application of the TAM to shed light on the factors influencing employees' adoption and utilization of this emerging AI system.

2.1.3. Technological Acceptance

The adoption and acceptance of AI technology by employees are crucial factors that affect a firm's innovation outcomes and performance (Lichtenthaler, 2019). The TAM suggests that employees' beliefs regarding the ease of use and relative usefulness of AI technology play a significant role in its adoption (Ambati, Bojja, Narukonda & Bishop, 2020). Davis (1985 cited in Chuttur, 2009) defined perceived usefulness and perceived ease of use as follows:

Perceived usefulness: The degree to which an individual believes that using a particular system would enhance his/her job performance.

Perceived ease of use: The degree to which an individual believes that using a particular system would be free of physical and mental effort (Chuttur, 2009, p.5).

According to Davis' (1985 cited in Chuttur, 2009) hypothesis, the user's attitude towards a system plays a significant role in determining whether they will accept or reject it. The user's attitude, in turn, is thought to be impacted by these two primary beliefs. However, the growing use of AI constitutes an additional challenge in many firms' transformation processes. As noted by

Lichtenthaler (2019), many employees are reluctant to accept these technological evolutions due to fear of job loss or negative attitudes towards AI. As Choi (2021) argues, user motivation to adopt AI-based technology is positively associated with their willingness to accept it, as it improves convenience, efficiency, and service speed, providing tremendous value to users. Moreover, AI has the potential to democratize services by making them easier to use and integrating them with human capabilities. However, user confidence in AI-based technology is crucial for its successful adoption (Choi, 2021).

Given the implications of AI deployment discussed earlier, it is evident that employees are impacted in significant ways. To encourage adoption, the TAM emphasizes the importance of employees' perceptions of the ease of use and usefulness of AI technology. Therefore, understanding employees' experiences of AI and its effects is crucial. In the context of our study, which examines employees' experiences of their job performance with ChatGPT, it is essential to establish a clear definition of job performance that accounts for its multidimensional nature.

2.2. Job Performance

Artificial Intelligence has the potential to enhance job performance as was previously mentioned by Malik et al. (2021). However, the definition of job performance remains ambiguous, with researchers offering various perspectives on the term. To clarify its meaning, it is important to establish a concise and relevant definition of job performance through a review of the current literature on job performance.

Viswesvaran and Ones define job performance as “scalable actions, behaviors, and outcomes that employees engage in or bring about that are linked with and contribute to organizational goals” (2000, p.216). Pandey (2019) adds that job performance is linked to achieving organizational goals and objectives, while Caillier (2010) emphasizes that high-performing employees are those who directly contribute to the mission of the agency. Stewart and Brown's (2009) definition aligns with this idea, defining job performance as the contribution made by individuals to their employing organization (Ramawickrama, Opatha & Pushpakumari, 2017). It is crucial to acknowledge that some scholars have contended that job performance solely involves an employee's contribution to

the accomplishment of an organization's goals, as this is deemed the only critical aspect of an organization (Viswesvaran & Ones, 2000). Nevertheless, Austin and Villanova (1992) put forward that job performance is multifaceted and should be assessed from various dimensions. We identified that the achievement of organizational goals is one of the three dimensions of job performance. As mentioned, it is crucial to shed light on the definition of job performance from multiple dimensions, thus, it is crucial to explore these various dimensions in the synthesis of the definition of job performance.

One of the other dimensions of job performance is task performance, as noted by, Meyer, Paunonen, Gellatly, Goffin and Jackson (1989), Borman (1991) and, Cheng, Li and Fox (2007). Task performance refers to the extent to which employees fulfill the requirements of their job function or activity during a specified time period (Rai & Tripathi, 2015). Specifically, task performance is described as the number of outcomes an employee produces in a specific job given a specified time period (Bernardin & Beatty, 1984; Bernardin & Russell, 1998). Bernardin & Beatty (1984), further emphasize that employees should have the time to be able to deliver a certain number of outcomes. Hence, saving time on obsolete aspects of the job is important, to increase the quantity of the work delivered (Opatha, 2015). Not only does task performance encompass the quantity of the work delivered it also includes the quality of work that is delivered. The quality of work delivered is a crucial component of task performance, as it validates the performance of an employee on a specific task (Sonnentag, Volmer & Spychala, 2008).

As mentioned before, task performance only covers merely the results of the work done and does not account for the additional effort required to go beyond formal job requirements (Sonnentag & Frese, 2002; Parker, Williams & Turner, 2006). This is where contextual performance comes in, as it includes behaviors that indirectly contribute to an organization's performance by facilitating task performance (Sonnentag, Volmer & Spychala, 2008). One of the categories of contextual performance that is particularly relevant to job performance is volunteering for activities beyond a person's formal job requirements (Motowildo, Borman & Schmit, 1997). This is defined as exploiting career development opportunities and is one of the five components of contextual performance (Organ, 1988; LePine, Erez & Johnson, 2002). Another aspect of this is actively keeping up with matters that affect the organizations, i.e. staying relevant and up-to-date in the

field (LePine, Erez & Johnson, 2002; Organ, 1988). Organizations benefit from career development opportunities because they contribute to employees' job performance (Craig, Allen, Reid, Riemenschneider & Armstrong, 2013; Lee & Lee, 2018; Moon & Choi, 2016; Sturges, Conway, Guest & Liefooghe, 2005; Weng, McElroy, Morrow & Liu, 2010). This is because of how individuals perceive that their job performance has improved as a result of their career development opportunities (Lee & Lee, 2018).

By synthesizing the current literature on job performance, we have identified three relevant dimensions: contribution to achieving organizational goals and objectives, task performance and exploiting career development opportunities. Now having analyzed the current literature on job performance and what it entails we have established, with reference to the abovementioned topics, our definition of job performance as follows:

"*Job performance is the extent to which employees deliver a record of qualitative outcomes within a specific time frame, while actively exploiting career development opportunities to eventually contribute to organizational goals.*"

In our study, we aim to explore how employees experience their job performance across its various dimensions with the emergence of ChatGPT. As mentioned before, AI has the potential to play a role in employees' experience of their job performance when using this technology, such as ChatGPT (Malik et al., 2021). Given that job performance is a multifaceted concept encompassing contributions to organizational goals, task performance, and actively exploiting career development opportunities, it is crucial to consider the social and cultural context in which ChatGPT operates. This is because employees' perceptions and interactions with ChatGPT can significantly influences their experience of their job performance. As a result, a socio-technical perspective is essential for a comprehensive understanding of the role of ChatGPT in the workplace.

2.3. The Socio-Technical View

AI has been a topic of discussion for decades, and its development and deployment have been shaped by various factors such as technical considerations, societal and cultural values, organizational structures, and power dynamics. A socio-technical perspective is necessary to understand the social and cultural context in which AI operates, which is essential for understanding how humans perceive and use it (Sartori & Theodorou, 2022; Holton & Boyd, 2021). As noted by Sartori and Theodorou (2022), a micro-level analysis is crucial in understanding how individuals view and engage with AI. This includes exploring the perspectives of employees, who are often the end-users of AI systems in the workplace.

The literature shows that social structures, cultural values, and power dynamics can affect how humans perceive and interact with AI, and a socio-technical perspective can help to illuminate these dynamics (Holton & Boyd, 2021). For example, Yu, Xu, and Ashton (2023) noted that the implementation of AI in the workplace can signal to employees that their jobs are at risk, leading to diminished career satisfaction, organizational commitment, and increased turnover intentions. Therefore, understanding how people in different roles and contexts view and engage with AI is essential for developing a more nuanced understanding of its social and ethical implications (Sartori & Theodorou, 2022; Holton & Boyd, 2021).

Moreover, the way humans interact with AI can shape its development and use (Holton & Boyd, 2021). For instance, the goals of the organization, the attitudes of its employees, and the power dynamics within the organization can influence the use of AI in organizations (Makarius et al., 2020). Yu et al. (2023) also noted that employees' perceptions of AI adoption and application can significantly influence their job-related outcomes. While some studies suggest that high-quality AI application can enhance employees' job performance, the continuous automation of work activities and the redefinition of job roles and processes by using AI in the workplace may potentially result in low job performance and high turnover rates in various occupations and industries (Yu et al.,2023).

A socio-technical perspective helps to assess perceptions of job performance in a better way by considering the interactions between technology, humans, and the social and organizational context in which they operate. This perspective emphasizes the need to understand the complex interactions between technological systems, social systems, and the environment in which they operate (Sartori & Theodorou, 2022; Holton & Boyd, 2021). Having explored this topic, we move on to investigating the implications of AI on employee experience of their job performance and the symbolic meaning that might be attached to its implementation.

2.3.1. AI Implementation and Job Performance

According to Younis and Adel (2020), the introduction of AI in the workplace requires employees to acquire new skills and knowledge to train and interpret machine outputs, as well as ensuring that ethical and safety procedures are being followed. This change in job design and workforce planning can lead to mixed perceptions of job performance, as found by Bhargava, Bester, and Bolton (2021), who report that some employees perceive Robotics, Artificial Intelligence, and Automation (RAIA) implementation to lead to increased efficiency and improved job performance, while others view it as having a negative impact on their job satisfaction and performance. Additionally, Bhargava et al. (2021) found that positive perceptions of RAIA implementation are more likely to result in increased job security and employability, whereas negative perceptions can lead to a perception of risk to job security and employability.

However, Prasad (1993) suggests that the implementation of technological change requires more than just the acquisition of new skills and knowledge by employees. The author specifically focuses on the symbolic processes involved in work computerization and how they shape the meaning that employees attach to their work, the technology, and their relationships with colleagues. Prasad (1993) draws on symbolic interactionism to argue that the implementation of computerization is not simply a technical process, but also a social process that involves negotiation, interpretation, and the construction of new meanings.

As previously established in the literature review, job performance encompasses various dimensions, including an individual's activities and actions that contribute to the achievement of

organizational goals, as well as task performance and behaviors that indirectly contribute to an organization's performance, such as exploiting career development opportunities. Since our study aims to explore how employees experience these dimensions with the emergence of ChatGPT, a socio-technical view becomes relevant. This approach highlights the importance of considering the social context in which AI operates, including the perspectives of employees, who are often the end-users of AI systems in the workplace. Additionally, this approach enables us to understand the potential link between employee experience of their job performance and AI implementation in a more nuanced way, which is essential for addressing the ongoing debates.

2.4. Chapter Summary

In this literature review, we aimed to explore potential links between the emergence of ChatGPT and employees' experience of their job performance, drawing on relevant topics. Specifically, we have examined AI in general, NLP and ChatGPT and deployment of AI in organizations and its implications for employees and the organization itself. Our theoretical review revealed that the deployment of AI in organizations has both positive and negative implications for employees and the organization itself. Also, we looked at the TAM, which emphasizes the importance of employees' perceptions of the ease of use and usefulness of AI technology. As we are looking at employees' experiences of their job performance, this model is necessary to understand how they experience their job performance with the emergence of ChatGPT. Through a comprehensive review of the current literature on job performance, we were able to establish a concise and relevant definition that served as a foundation for our analysis. We have explored the socio-technical view to provide insight into the employee perspective, acknowledging that the successful implementation and use of AI in the workplace is highly dependent on how humans perceive, interact with, and adapt to it. Furthermore, we have briefly touched upon the link between AI implementation and job performance.

3. Methodology

The methodology chapter provides a detailed description of the research design and approach used in this study. The purpose of this chapter is to provide transparency and justification for the chosen methodological approach, including the philosophical underpinnings of the study. Additionally, the chapter will introduce the sample used in the empirical data collection, provide a description of the data collection methods, and explain the process used to analyze the data. Critical reflection will also be included to ensure the credibility of the research.

3.1. Research Approach and Philosophical Groundings

This study employs a qualitative research design, which can offer an extensive understanding of individuals' attitudes and experiences (Creswell, 2012). This approach is particularly useful in representing participants' views and perspectives and covering contextual conditions that strongly influence human events (Yin, 2011). A qualitative approach allows for the exploration of these contextual factors and their influence on the research topic, providing a more comprehensive understanding of the phenomenon under investigation. Consequently, this approach is essential in exploring employee experiences of their job performance with ChatGPT.

Abduction is an approach to theory development that is particularly well-suited to exploratory research in social science (Alvesson & Kärreman, 2007). It is particularly useful for research that seeks to understand complex social phenomena. It enabled us to move beyond traditional deductive and inductive approaches, which may be too limited in their ability to capture the nuances and complexities of social behavior (Alvesson & Kärreman, 2007). This approach allowed us to problematize and rethink the dominating ideas and theories regarding how employees experience their job performance with the development of AI. Additionally, our preunderstanding and academic framework served as a tool to open up a dialogue with the empirical material. This allowed us to remain open to surprises, resulting in creatively reinterpreting empirical data and we were able to develop a new and more nuanced understanding of the phenomenon.

We used an interpretivist approach as the foundation for our research methodology. As described by Prasad (2017), an interpretive approach emphasizes the significance of social interactions,

symbols, and meanings in shaping individuals' understanding of the world and themselves. In our study, we seek to understand how the emergence of ChatGPT shapes employees' experience of their job performance. More specifically their task performance, contribution to organizational goals and career development prospects. The interpretive approach allowed us to examine the subjective interpretations and meanings that individuals attach to this phenomenon. Additionally, this approach recognizes that experiences and interpretations are subjective and situational (Prasad, 2017).

More specifically, we utilized a symbolic interpretivism tradition. This focuses on discovering novel and meaningful insights through a variety of social interactions in the workplace, with a primary emphasis on the process rather than the outcome (Prasad, 2017). Additionally, Prasad (1993) explains in her research how this approach can contribute to understanding the symbolic processes involved in the adoption and use of technology in the workplace. She argues that technology, like computerization, can hold multiple meanings for different individuals and groups within an organization, and the strength of these symbolic realities can differ (Prasad, 1993). The implementation of computerization involves not only technical aspects but also social processes, which require negotiation, interpretation, and the formation of new meanings and identities (Prasad, 1993). Similarly, we aimed to understand how employees interpret the symbolic meanings of their work environment, including the emergence of ChatGPT, and how this interpretation influences their experience of job performance.

Our ontology is constructionism, an ontological position that asserts that social phenomena and their meanings are continually being accomplished by social actors, and that social phenomena and categories are not only produced through social interaction but are in a constant state of revision (Bryman, Bell & Harley, 2022). By examining the experiences of job performance with the emergence of ChatGPT, we were able to gain insight into how employees interpreted and made sense of ChatGPT, how it influenced their daily work tasks, and their contributions to organizational goals and career development prospects. Therefore, ontology provides a critical foundation for this research by allowing us to understand the nature of reality and its relation to the phenomena under study. We utilized the term constructionism in relation to its ontological meaning, whereby it presents social objects and categories as socially constructed (Bryman, Bell

& Harley, 2022). This allowed us to explore the nature of social entities and their subjective meanings, and how they are shaped and influenced by the emergence of ChatGPT. We recognize that our own accounts of the social world are constructions, and that knowledge is viewed as indeterminate. Therefore, we approach our research with a critical perspective that acknowledges the ongoing process of social construction and the need for reflexivity in our research practices.

3.2. Case Study

For our study, we aimed to understand how employees experience their job performance with the emergence of ChatGPT. To achieve this, we chose to use a cross-case study approach, which allowed us to gather information from employees in multiple IT companies. The decision to conduct a cross-case study was motivated by several factors. One of the primary reasons for this approach was the novelty of ChatGPT technology, which has not yet been widely adopted across organizations. Given the limited number of companies that have integrated this technology into their operations, it was imperative to conduct a study that involved a sample of organizations that have implemented ChatGPT, in order to achieve a comprehensive understanding of the topic.

Secondly, we wanted to ensure that the participants we interviewed had relevant experience and insights into using ChatGPT. By interviewing employees from different companies, we were able to engage with a diverse group of participants, who had varying levels of experience with the technology. A cross-case study design allowed for a comparison of how ChatGPT is being utilized in various settings and contexts, which can provide insights into the factors that influence the different ways employees interpret its influence on their job performance.

Lastly, as we adopted symbolic interpretivism to investigate the nuanced understanding of the topic, we had planned to conduct a single-case study with an IT company that had agreed to collaborate with us. However, despite our initial expectations, we were only able to conduct five interviews with employees within the company. As time constraints became an issue, we decided to expand our search to other companies to ensure a more diverse and representative sample size.

Despite the potential loss of depth in analyzing data from various organizations, the cross-case approach provided us with a variety of different voices that added up to each other. We were able

to gather rich data on the emergence of ChatGPT and the role it plays on employee experience of job performance from multiple perspectives. Furthermore, we recognize that a single-case study might have provided us with a more nuanced understanding of the topic.

3.3. Data Collection

In our research, we employed purposeful sampling to select participants who can provide insight into our research question. Specifically, we utilized theory or concept sampling, where individuals are selected by the researcher based on their potential to contribute to theory generation or the exploration of specific concepts (Creswell, 2012). As previously mentioned, we reached out to several companies that we suspected already use some sort of AI system within their operations. Specifically, we selected participants who have experience working with ChatGPT. We aimed to get a diverse sample, including employees from different departments and positions within various IT companies. This approach ensured that we collected data from individuals who have sufficient knowledge and experience with ChatGPT, and who can provide valuable insights into our research question.

To accommodate the geographical constraints of our participants, we conducted the interviews via video conferencing software, specifically Zoom meetings. We aimed to conduct the interviews jointly to maximize the rigor and quality of our data collection. However, due to logistical constraints, we conducted two interviews individually. Nonetheless, we ensured that our interview questions and approach remained consistent across all interviews to maintain the credibility of our data. We followed our interview guide and made minor alterations as interesting aspects emerged during the interview process.

In our pursuit to generate a theory or gain a deeper understanding of how employees experience their job performane with ChatGPT, we chose semi-structured interviews as the primary data collection method. This approach provides participants with the freedom to express their thoughts and experiences in their own words while still ensuring that specific questions are asked to guide the discussion (Kvale 1996). Additionally, semi-structured interviews allow for flexibility in the interview process, enabling the interviewer to ask follow-up questions and probe for more

information based on the responses of the participants (Kvale, 1996). As Barnham (2015) notes, semi-structured interviews provide a balance between the flexibility of unstructured interviews and the standardization of structured interviews. This approach was particularly important for our study, as we sought to understand the subjective interpretations and meanings that individuals attach to their experiences with ChatGPT emergence in their workplace. Through the use of semi-structured interviews while also utilizing an interpretivist approach, we were able to gather rich and detailed data that provided a deep understanding of the phenomenon we were investigating.

3.3.1. Table 1: List of Interviewees

Name (Synonym)	Age group	Position
John	50-60	Sales Specialist for Cyber Security
Marie	40-50	E-commerce Project Manager
David	30-40	Software Developer
Sarah	40-50	Alliances Director
Michael	30-40	Account Manager
Robert	50-60	Product/Service Developer
Benjamin	30-40	Licensing Specialist
Oliver	40-50	Sales Director
Emily	30-40	Operational Specialist
James	20-30	Software Engineer

3.4. Data Analysis

Following the data collection process, we moved on to transcribing our interviews. In order to do that we utilized the software program Otter.ai. The program allowed us to automatically transcribe the audio recordings into text format, which was a valuable time-saving tool. However, to ensure the accuracy of the transcriptions, we listened to each interview while reading through the transcripts to identify any errors or inaccuracies. When necessary, we made corrections to the transcripts to ensure that the transcribed text accurately reflected the content of the interviews. Given the large amount of information gathered through the semi-structured interviews, we utilized a systematic approach, as suggested by Rennstam and Wasterfors (2018), which involves

distilling the empirical material by reducing it to its essential elements. The authors argue that this process of reduction allows researchers to identify the most important aspects of the data, and to draw meaningful conclusions from the analysis (Rennstam & Wasterfors 2018). The data collected from the semi-structured interviews were analyzed using theme analysis and categorization. Our approach involved identifying recurring patterns in the data, categorizing them into themes, and further analyzing them to gain insights into the research question (Braun & Clarke, 2006). More specifically, we assigned a color to each code and manually highlighted important statements in the transcripts with the applicable color. We chose this method as we thought it would be the most accurate way of identifying emerging themes and patterns in the data. After reading our transcripts and collecting the important quotes, we made an organized overview of the codes and themes, which allowed for further analysis and interpretation of the data.

As suggested by Rennstam and Wasterfors (2018), the process of categorization can start before the actual interviews take place. In our research, we followed this advice by creating categories that we thought would apply to our research question before structuring the interview guide. This process was informed by reading previous literature in the area, which helped us identify potential categories that we could use to analyze the data (Rennstam & Wasterfors 2018). Moreover, by establishing a comprehensive definition of "job performance" that incorporated three dimensions, we anticipated the emergence of potential themes and categories during our analysis. The process of categorization before the interviews provided us with a framework to guide the analysis of our empirical findings. By having a preconceived idea of the categories that could potentially emerge from the data, we were better able to identify and focus on the most relevant themes that emerged from the interviews. This allowed us to analyze the data more efficiently and to draw more meaningful conclusions about the research question at hand. Ultimately, the process of categorization helped us to stay focused on the most relevant aspects of the data and to avoid getting sidetracked by irrelevant details.

3.5. Quality Considerations and Reflexivity

As Alvesson and Sköldberg (2018) note, reflexivity is an important aspect of qualitative research. Through critical reflection of our empirical data, we have attempted to mitigate the limitations inherent in this type of research. Dependency on interviewees for accurate information is a potential issue, and as Schaefer and Alvesson (2020) suggest, participants may follow social norms or state things out of political interests. Furthermore, due to the remote nature of our interviews, we may not have been able to establish a personal connection with the participants. As Finlay (2002) points out, the pre-understanding of the topic presents a challenge to qualitative researchers. Our own opinions and experiences may influence the research findings, and we have tried to challenge our preconceived notions throughout the research process to ensure that our analysis is as objective as possible.

Another potential limitation is the variability in participants' emotions and moods on different days, which may have affected their responses (Schindler & Cooper, 2019). As Schaefer and Alvesson (2020) suggest, staying critical of the data and considering how participants' emotions may have influenced their answers is important. To increase the credibility and trustworthiness of our findings, we have made an effort to stay as close to reality as possible, taking into account potential participant biases and ensuring that the research findings accurately reflect the experiences, perspectives, and behaviors of the participants (Schindler & Cooper, 2019). However, we acknowledge that our research is based on a limited number of interviews. A more extensive study may have led to different conclusions.

Moreover, given that ChatGPT is a new technology that people have not been using for a long time, we need to consider how this may also affect the results of the research. For example, interviewees may have different levels of comfort or familiarity with the technology, which may influence their responses. As such, we need to take into account the potential impact of the novelty of the technology on our research findings.

One potential limitation of conducting interviews via Zoom is the lack of personal connection and inability to interpret body language cues that are typically present in face-to-face interactions. This

may have resulted in a loss of nuanced insights that could have been gleaned from observing participants' nonverbal behaviors. Despite this limitation, it is worth noting that virtual interviews have become more accepted and normalized in recent years, particularly due to the widespread adoption of remote work and online communication platforms. As such, participants may have been more comfortable engaging in virtual interviews, leading to greater openness and candidness in their responses.

In light of these limitations, reflexivity was a crucial aspect of our research process. We continuously reflected on our assumptions, biases, and preconceptions to ensure that they did not unduly influence the findings (Alvesson & Sköldberg, 2018). This self-awareness is essential to ensure the credibility of our study.

3.6. Chapter Summary

In this study, we employed a qualitative research design, utilizing abduction as an approach to theory development. This allowed us to remain open to surprises and creatively reinterpret empirical data, resulting in a new and more nuanced understanding of the phenomenon. Our methodology was based on an interpretivist approach, with a focus on symbolic interpretivism, which aims to discover novel and meaningful insights through social interactions in the workplace. Our ontology is constructionism, which views social objects and categories as socially constructed.

To gather data, we conducted 10 semi-structured interviews within multiple IT companies, which allowed us to understand the subjective interpretations and meanings that individuals attach to their experiences with ChatGPT emergence in their workplace. Following the data collection process, we transcribed our interviews using the software program Otter.ai. We then analyzed the data collected from the interviews using theme analysis and categorization.

We critically evaluated the responses and sources, aiming to stay reflexive throughout the course of this study. This involved reflecting on our pre-understandings, biases, and the potential impact of our own presence on the research process. By engaging in reflexivity, we were able to enhance the quality and rigor of our research and increase the trustworthiness and credibility of our findings.

4. Empirical Findings

In the following chapter we will present our empirical findings based on the two themes and their sub-themes that we derived from our interviews. Specifically, the themes that emerged from the empirical analysis were identified as: ChatGPT Emergence and Job Performance. Moreover, there are sub-themes that provide a deeper understanding and illuminate these concepts.

4.1. ChatGPT Emergence

To gain insight into how employees are using ChatGPT in the workplace, we decided to ask them about their overall experience with the technology. Specifically, all participants were asked about their opinion with regards to the emergence of ChatGPT in their organization and daily work, ultimately assisting them with their daily tasks. Additionally, we were interested in their current attitudes towards the technology since they have had the opportunity to interact with it.

4.1.1. General Experience - Is it perfect?

When the participants were asked what their experience has been using ChatGPT, many began by explaining how they have just recently started using it, indicating that they were still *"playing with it"* and learning how to interact with it. John explained that his interaction began with *"curiosity"* and has been experimenting to figure out what it can do. Marie confirmed this as well, while also explaining how she has been using ChatGPT:

> *"And I had tested it before, just out of curiosity. And, you know, you just kind of start asking simple questions, and then you think about more specific tasks that you would like to get some more information from ChatGPT. And then you start to try to intertwine it into your work sometimes just out of curiosity". (Marie)*

Marie, like many other employees, suggest with this quote that she began by experimenting with the tool using simple prompts, and then progressed to exploring how it could assist her with tasks in the work environment. Even though most participants seem to still be experimenting with the

technology, one participant seemed to have completely implemented it in their daily work.

"Lately, every day. Having used ChatGPT, to assist me in many of the presentations that I'm doing. So, ChatGPT has become part of what we're doing today" (Sarah).

Since the employees work in various roles within the IT industry, the answers of how they were using ChatGPT were diverse. Some participants described using it to analyze data or make presentations. Another common answer was creating summaries, whether that being meeting points or large documents. As Marie mentioned, employees are also using ChatGPT for gathering information where she also added how ChatGPT helps her in "*making different texts or getting specific information on products".* This was confirmed by other participants. Robert mentioned a similar example where he replaced Google with ChatGPT while conducting research for his work:

"Instead of going on Google to research, I'm using that one [ChatGPT] to say, ´the customer is doing this, and he needs to do this. What are his options? ´, and then he will give me, you know, plenty of options" (Robert).

Two more employees, like Robert, mentioned Google in comparison with ChatGPT, explaining that the tool is a *"better version of it"* as it gives more detailed answers. Additionally, Sarah explained how she asks ChatGPT to make her texts sound more *"professional"* or *"friendly".* Some participants even seemed to experience ChatGPT as an individual, describing it as a *"colleague"* or a *"person".* Michael elaborated further on this point by stating:

"It's like, you have someone sitting next to you that knows really everything and you can just bounce off ideas and questions" (Michael).

However, just like a person, all of the participants had experiences where ChatGPT made mistakes. A common example was receiving *"completely wrong information")* One participant elaborated on this point:

"With my experience with ChatGPT is that it's not always right. It does make mistakes, it can get confused, or, you know, send you something quite different than what you asked for." (Michael)

This is something that all of the participants seemed to mention. Many of them experience that the technology can be unreliable and John mentioned how he feels he needs to *"verify the information"* that he gets. Emily described this as having to take the information she receives from ChatGPT with *"a pinch of salt."*

Although the participants had limited experience and encountered drawbacks with the technology, most employees found ChatGPT helpful in their work. Furthermore, it was evident that they believed ChatGPT has not yet fully unlocked its potential. With the technology being in its early stages, it seems that it will continue to grow and develop within working environments. Consequently, we were curious about the employee's attitudes towards the technology and how they anticipate its future development in their workplace.

4.1.2. Attitudes - Will it take my job?

Employees seemed to have an overall positive response towards the emergence of ChatGPT. As the previous chapter describes, it has indeed helped them complete tasks that might be considered *"boring"* or *"standardized"* as described by a participant. However, when asked to explain in more detail how they feel about this development, the answers became more critical. As previously mentioned, ChatGPT may provide users with wrong information. Marie expressed a concern on having such easy access to such vast information:

"If you're getting information from ChatGPT, it could be that it is so easy. And the people will lose their critical thinking about the text and where it is coming from" (Marie).

Like most participants, she later emphasized the importance of employing critical thinking when using ChatGPT. Robert shed a different light on this topic:

"But again, you need to know a lot of stuff to be able to use it properly. You need to have knowledge you can't just ask ChatGPT yet I think to do the work for you and then you can just come get it" (Robert)

Emily supported this perspective by explaining that *"if you've done your research and you know your stuff, then you can ask it for help".* These comments caught our attention as we felt that many employees suggested that some basic knowledge is needed in order to work effectively with ChatGPT, and they feel the need to further apply their critical thinking. James summarized these opinions in a perfect way by saying: *"It's very nice. If you use it properly."*

Additionally, we asked participants if they have any concerns regarding the development of ChatGPT. There were mixed answers and interpretations of this question, but all participants agree that some caution needs to be taken. However, the level of concern varies. Benjamin mentioned the *"dark side"* of ChatGPT, suggesting that he is not able to fully trust it. Some similar answers emerged, with James describing the need to *"be careful".* Additionally, some participants brought up the concern of cyber security. These comments can be related to broader concerns, instead of their personal concerns.

When we asked the employees to explain the concerns that they personally had, most of them touched upon the topic of job security. None of the participants expressed fear that ChatGPT would replace their jobs in the near future, suggesting that ChatGPT does not possess the knowledge and skills that they have. This can be linked to the earlier discussion about the importance of having some prior knowledge to perform optimally with ChatGPT. However, it was mentioned by several participants that the tool has the potential to replace some jobs, but none had concerns about their own positions. The participants conveyed this in various ways:

"So, from my, my standard, my work, I don't feel threatened about it, but I can imagine that some jobs will, I will not say vanish, but the demand for people doing those jobs will diminish. So, so, yeah, I think that some jobs will change with these automated AI solutions." (John)

"I'm not worried that an AI will, you know, take my job, but it's more of how we can use it to our advantage?" (Michael)

"No, not really. I mean, a lot of people are like, 'aren't you afraid that your job will disappear?'. But that's not really a concern." (James)

However, many mentioned pressures of keeping up with the technology, with Sarah using the metaphor of a *"huge tsunami wave"* to describe the development. Despite her very positive attitude towards the technology, she suggests that people need to learn and adapt as she believes ChatGPT might be *"implemented in more things".* This was a common perspective, with many employees using words as "*it will be"* and *"potentially"* to describe this development, suggesting that ChatGPT will play a bigger part in their job roles. Participants agreed that ChatGPT has not reached its full potential yet and *"expect to use it more"* in the future. John suggested that as the technology develops, it will become more reliable and accurate. Oliver supported this by saying:

"We would have to see I mean, ChatGPT is still learning. It's evolving. The more you use it, the more it develops, so perhaps it will become perfect." (Oliver)

Based on the findings from this section, it appears that employees have generally positive experiences with ChatGPT, finding it helpful in completing various tasks in the workplace. Participants described how it assists them in completing some standardized daily tasks. Some have even gone so far as to replace Google with ChatGPT. However, there are concerns about ChatGPT's reliability and accuracy, as participants reported receiving wrong information at times. They feel that some prior knowledge and critical thinking is needed in order to work optimally with the tool. Participants also expressed their perceptions of future development, indicating that ChatGPT has the potential to play a bigger part in their job roles. However, none of them seem to be concerned that ChatGPT will take over their jobs in the near future.

After gaining insight into the overall experiences and attitudes of the participants regarding the emergence of ChatGPT, our curiosity led us to delve deeper into the specific aspects of their work life that are influenced by these attitudes.

4.2. Job performance

In order to gain a better understanding of how employees experience their job performance with the emergence of ChatGPT, we have solicited employees' experiences regarding the different dimensions of job performance, as per our previous definition. Our focus was specifically on how employees perceive and navigate their job performance in light of the integration of ChatGPT technology.

In the following subsections we will shed light on the employees' experiences of the different dimensions of job performance and how these experiences are with the emergence of ChatGPT.

4.2.1. Task Performance - "I am hoping it will make our life easier in a way."

The first dimension of job performance refers to task performance. We asked employees how they experience their task performance with the emergence of ChatGPT. Within this dimension we looked to explore the experience of employees with regards to the quality and quantity of their work. Specifically, when we asked the participants if they could share an example of how ChatGPT has improved the quality of their work, most of them responded that they had not yet encountered such a situation. However, they did mention that ChatGPT has been helpful in improving their written texts by making them more professional, detailed, and business-like. This is an easy task for ChatGPT, which can simply be prompted to improve the text. Additionally, some participants reported that ChatGPT has broadened their scope on certain tasks. When we specifically asked Robert for an example of how ChatGPT has improved the quality of his work, he mentioned:

"I found at least I received information that I hadn't thought of yet. Which is very good because it broadens the scope." (Robert)

Interestingly, in his statement, he mentions "at least I," which caught our attention. While ChatGPT has shown improvements in text generation, it still has room for improvement in certain areas. As previously mentioned, some participants expressed skepticism regarding ChatGPT's ability to provide accurate information beyond improving text, as they felt the system could not be relied on

for 100% truth. Specifically, James mentioned that so far, he has not faced any situation where he couldn't complete a task without the help of ChatGPT:

"So right now, there isn't anything that it would be able to do unless it is, like I said, really, really hidden somewhere deep down on the internet. But generally, as of right now, ChatGPT it won't be able to do anything I wouldn't be able to do on my own." (James)

Although the interviewees unanimously agreed that ChatGPT has not yet improved the quality of their work to a significant extent, besides improving texts, they did acknowledge that it has significantly improved their task performance in terms of timesaving and efficiency. They mentioned things as "*more productive*" and "*more efficient*". For example, John noted that using ChatGPT has allowed him to automate his routine work, making it easier for him to complete his quoting work. Additionally, employees have reported that the use of ChatGPT has the potential of allowing more free time to focus on their customers Sarah put it like this:

"It will help me to spend less time building these presentations myself for getting this all real or writing or everything to allow me to focus on something more, to bring more value to our customer. So, I see it as a big opportunity, at least my point of view." (Sarah)

What we can see from this quote is that Sarah uses ChatGPT to assist her in some mundane tasks of her daily work, such as making presentations. Allowing her to free up time to bring more value to the customer. Which is an interesting aspect that we found in many of the employees. Almost all the employees see ChatGPT as a tool to speed up tasks and be more efficient, to ultimately free up time for other tasks. Many of them mentioned, they hope to have time to focus more on the human aspect of their job or the more strategic aspect. Oliver said the following about this:

"I am hoping it will make our life easier in a way that it will just give us more time away from the administrative tasks away from the manual input away from changing this to that and moving this data over to this, you know, PowerPoint or whatever it is. And we can use all this time to be more proactive, be more strategic, to talk more to customers to talk more with partners help them and that will grow the business organically." (Oliver)

He emphasizes that ChatGPT has the potential to automate all mundane and administrative tasks, it is just not there yet. Allowing them to focus on more strategic and proactive efforts such as engaging with customers and partners to grow the business. This highlights the potential benefits of ChatGPT in terms of time management and increased productivity. More specifically, allowing individuals and organizations to focus on more value-adding activities.

Interestingly, in no case did any of the employees mention that ChatGPT enabled them to increase the number of outcomes they produce daily. Some did mention that they are more productive and efficient, yet none of them mentioned that they can now get more work done with the help of ChatGPT.

All in all, based on the findings of this section, although most participants had not experienced a significant improvement in the quality of their work, they acknowledged that ChatGPT has been helpful in improving their written texts by making them more professional and detailed. Furthermore, ChatGPT has broadened their scope on certain tasks. No one mentioned that ChatGPT has improved the number of outcomes of their work, though participants reported that ChatGPT has significantly improved their task performance in terms of timesaving and efficiency, allowing them to complete their work faster and take on extra activities. As a result, employees have the feeling that ChatGPT will enable them to free up time to focus on the human and strategic aspect of their job to bring more value to both customers and the organization.

4.2.2. Actively Exploiting Career Development Opportunities - “So, it's up to me, and everybody else to stay relevant.”

A second dimension we explored within job performance was if employees actively exploit career development opportunities with the emergence of ChatGPT. We specifically asked if they had to develop or adjust skills and if they sought any training to do so. In our interviews with employees, we discovered an interesting aspect: while some workers only need to adjust their skills to ensure that they provide the right prompts to ChatGPT, others may need to develop additional competencies to effectively collaborate with the tool. They mentioned things as “*understand how*

to use it" and "*explaining to ChatGPT what I want*". Furthermore, some employees mentioned it helped them to develop additional skills. Oliver also mentioned that it is an act of letting go:

"You know, it's the act of letting go, isn't it? Letting go of the old ways of working, but also learning how to interact with it and how to ask the right questions."(Oliver)

He implies here that ChatGPT will be used more and more in the future and that we must become more adept to the system instead of resisting it. He also mentioned that he had to learn how to interact with it. Something Marie also mentioned:

"Yeah, well, yeah, I've adapted my skills in the way I approach ChatGPT and how I ask about the subjects that I want information on. And then I asked something, then I get an answer. And then I'm like, oh, I'm going to ask it about this perspective, or add this word into it. So yeah, I think I'm always developing in how I use the tool." (Marie)

Marie indicates that she is developing her skills by using ChatGPT, especially in how she should interact with the tool. When we asked Oliver the question if he had sought any training related to using ChatGPT he had a similar answer to that of Marie, he stated:

"No, it's mostly learning by doing and then I am following people on Twitter and LinkedIn that are AI specialists, and they are also always giving tips and tricks on how to do things. So, I like to read that." (Oliver)

Oliver then emphasized the fact that you must go out and read about the information ChatGPT is giving you as it might not be 100% correct. Many employees agreed with Oliver and mentioned they had to apply more critical thinking towards the answers ChatGPT is giving you as they are not always correct. Although none describing it as skill enhancement, many are using their prior knowledge and skills to critically assess the information that ChatGPT generates.

Some employees noted that ChatGPT did indeed help them to develop (new) skills, Benjamin and Sarah gave a specific example when asked how it has helped them to develop (new) skills:

"Especially it is kind of teaching me how to write more formal" (Benjamin)

"I think, to think different. Because normally we are thinking like this to the plain kind of questions okay, what is going to happen? What I want you to think about how to explain to ChatGPT what you want out of it. Allowed me to see things in a different perspective. Like I was telling you a lot, help me to grasp, what will be the objections. And I'm starting to think in a more 360 degrees. Like how to explain it to take where I wanted to, I want to overcome this." (Sarah)

Surprisingly we saw that Robert did not have the feeling he had developed a new skill. When we asked if he had to adjust or develop a new skill, he answered:

"None. I had to read some articles to be able to know what to ask or how to ask. But besides that, I don't think I have developed a new skill." (Robert)

It is intriguing to note that Robert did not perceive the need to acquire or enhance any skills to effectively work with ChatGPT. It is plausible that he either possesses the requisite skills to proficiently operate the system, or he perceives that such skills are not necessary to utilize the system optimally.

With the emergence of ChatGPT and skill adjustment and development come the need to stay relevant in the field. This can be achieved through actively exploiting career development opportunities. We asked the employees about their experience regarding staying relevant and if they feel like they have to. Interestingly, when we asked Oliver if the requirements or expectations of his job will change with the emergence of ChatGPT, he answered:

"So, it's up to me, and everybody else to stay relevant." (Oliver)

He signifies the requirement for everybody today to stay relevant as it can become crucial in everybody's jobs to be able to work with a system like ChatGPT. This was echoed by almost all

interviewees, as they want to stay ahead of their competition and not left behind. Benjamin, answered the following when we asked him why he wants to stay relevant:

"Yeah. I think it's gonna give me an advantage in the field, to be able to seek out information straightaway and have it in nicely format to be understandable." (Benjamin)

What we see from this quote is that he feels he can have an advantage when he is up to date with the latest developments, regarding ChatGPT as he will be faster and better in his work. Furthermore, Sarah echoes this opinion and added that she thinks she will become obsolete if she does not stay relevant, when we asked her why she thinks she needs to stay relevant she answered:

"You need to become more technical, knowledgeable, to ride the wave of the technology to be able to continue being part of this business. […] Did you not learn what is going on? You're gonna become obsolete. Yeah. Yeah, that could be the demand for my work to become even more important." (Sarah)

Sarah noted that it becomes more and more crucial in every job to become technical, signifying that people need to keep up with the technological advancements, otherwise you will become obsolete. When we asked Oliver where he thinks this pressure to stay relevant is coming from, he answered:

"Just from me, at least because it's an ever-changing field, the world of IT. Every time there's something new, we need to stay up to date, especially like we are the experts for the experts, which are our partners, they are experts for their customers. So, in that way, I want to stay relevant for my job. But in another aspect, I want to you know, years are piling on me, and I want to just keep learning always I don't want to become obsolete ever. So, the only way to do that is keep learning and take all the innovation into how we work." (Oliver)

What we see from this quote is that he feels the pressure is coming from himself in order not to become obsolete, just like what Sarah mentioned. When we asked the other employees the same

question where the pressure is coming from, most of them answered from themselves, and Marie added the following:

"And the discourse in the society, people are talking about it, it is in the news, it is on the radio. So, I want to stay up to date. And I would like to be able to use it more in my work. So, in that sense, I am just trying to go with the flow. And learn how we can use it better." (Marie)

This quote shows that there is not only pressure coming from herself but also from society in general, according to Marie. She hears it everywhere and thus wants to stay relevant by soaking up as much information as possible and applying it to her job. When we asked Michael the same question, he answered the following:

"I think it's just more pressure, I think it's just for myself. I am already starting to feel like I am starting to lose out. Because there's so much new every day, there's so much, you know, development in this. Like I said, like, it's difficult to keep up with everything that's new."(Michael)

Here we see that he also feels the pressure coming from himself to stay relevant in the field, however he is experiencing that he is already behind as the advancements move so quick, he finds it difficult to stay up to date. However, when we asked him what steps he is taking in order to stay relevant in the field, he said he only follows some experts on social media. Whereas when we asked this question to John he answered:

"I've read a lot and tried to keep up. Yeah, if whenever the topic comes up if it's in meetings, conventions and so on, I try to pick up as much information as I can." (John)

He is trying to keep up as much as possible with the newest developments regarding ChatGPT in order to stay relevant in the field. He seems to be proactive when seeking for new information and trying to use it. Some other employees also read a lot about ChatGPT and the newest development in their field in order to stay relevant. However, interestingly when we asked James the question what steps he has taken to stay relevant he answered:

"No, I don't feel like I need to just yet. Because most of the code that ChatGPT will give back to me, I need to improve. I can't just plop it into our existing code base and expect it to work. So, in terms of that, I haven't really done anything for that because, yeah, ChatGPT isn't a perfect machine that always spits out the right answer you're looking for." (James)

What we see from the first sentence, is that he does not feel pressure yet to actively take action in order to stay relevant. He is confident that his own knowledge and skills are better than ChatGPT as the system is not perfect. He later adds that he is not scared that ChatGPT will take over his job, as he knows that the system still needs input from humans to be able to work properly. He did, however, note that it could become a requirement or expectation in his job to be able to work with ChatGPT effectively, he stated:

"It might. I'm not sure. I think it's not something I really think about too often because it's only in the future and it's not up to me to develop it. So, but I think it could." (James)

James thinks ChatGPT might lead to a requirement or expectations change in his job, though he is not sure about it, as it is only in the future, and he first would like to see how it will develop as there is some controversy around this chatbot. Most of the employees agreed with James's opinion, they think it will change it just has not happened yet as ChatGPT is not a perfect system, David and Robert added:

"I think it will definitely change. It has not changed, I guess. I've heard of other people that have you know, lost clients because of it." (David)

"I think the requirement is going to be finish your tasks quicker, but it's only a feeling I don't have that pressure and pressure yet." (Robert)

What we found interesting is that David mentioned some people have lost clients because of ChatGPT, he explained that the program to a certain extent can perform the work they are doing for their customers. This shows that in the future the requirements or expectations of their job

might change in the way that they have to be faster in delivering their work, as is mentioned by Robert. Furthermore, Sarah and Benjamin added that ChatGPT is going to change the way that they approach their customer:

"So it's gonna change the way that we approach our customers." (Sarah)

"But I think it's kind of to be able to provide this personal touch to explain it in human talk, what they need, not just the robot telling them what's the best for them. Even though the robot is probably useful almost all time, right. So, I don't think that aspects going to work is going to change or I hope not." (Benjamin)

When we asked Sarah the follow-up question of in what ways, she mentioned that the human touch will become more important when approaching customers. Something that Benjamin also stated, to be able to explain it to customers in a more human way instead of a robot telling the customers what to do.

What we take from this section is that some workers need to adjust their skills while others need to develop additional competencies to effectively collaborate with ChatGPT. It was noted that ChatGPT helped employees to develop new skills and adjust old ones by teaching them how to interact with the tool, be more critical of the answers it provides, and stay relevant in the field. However, some employees did not perceive the need to acquire or enhance any skills to work effectively with ChatGPT. The consensus was that staying relevant is crucial, and employees need to actively exploit career development opportunities to remain competitive in their jobs and "ride the wave of technology". Yet not many of the employees have actively exploited any career development opportunities to stay relevant in the field, besides following experts on social media. They do feel, however, that being able to work with ChatGPT will become a requirement or expectation of their job in the future, it has not come to that yet as it is still in the early stages. Furthermore, employees expressed that ChatGPT might also lead to a requirement or expectation change, namely the human aspect towards the customer will become more important according to the employees.

4.2.3. Achieving Organizational Goals – Does ChatGPT help?

A third dimension we explored within job performance was employees' experiences of their achievement of organizational goals with the emergence of ChatGPT. We specifically asked if they felt that their ability to achieve organizational goals had changed with the emergence of ChatGPT. All employees recognized the potential of ChatGPT helping them in their ability to achieve organizational goals, though it has not come to that just yet. Specifically, it will help them in their ability to do so even faster as it speeds up many of the processes. When we asked Emily the question, in what ways ChatGPT has changed her ability to achieve organizational goals, she answered:

"In matter of time managing, it's like the goals can be achieved way quicker." (Emily)

She specifically stated that the goals can be achieved quicker, because she is saving time when using ChatGPT. James was more critical towards the support of ChatGPT in his ability to achieve organizational goals, to the same question he answered the following:

"I mean, personally for me the way the goals I get set, they are mainly based on the products and the things we want to implement within the product. So, in a way, yes. Because we can use it to develop to programme. But at the same time, also no because if it wasn't there, we would still probably reach the same goals. It might take a little bit longer, but not that much longer." (James)

What we see from this quote is that ChatGPT can help him to achieve organizational goals faster, yet he would still be able to reach the same goal without ChatGPT as he still has the skills to do so, though it would take him a little longer. Furthermore, Sarah and Benjamin stated that ChatGPT will not only help to speed up the process, but they also stated the following:

"We are running one of the nominations, that we must do every year to nominate ourselves for the awards and can be selected as entrepreneur of the year which we have won the last two years. So now the big weight is on my shoulders about the winner but also because I want to

dominate many different categories, including sustainability, changemaker […] ChatGPT helped me and had contributed the fact that we can nominate more categories this time is going to be really successful." (Sarah)

"Yeah, I mean, it will definitely help to achieve the organisational goals. Because one of the goals is just better service to the customer. And if I can answer them quicker and better, than that's better service." (Benjamin)

What we see from the first quote is that ChatGPT allowed Sarah to nominate the company for more categories for their nominations. These nominations are related to awards for the company. To be nominated, companies need to write an assessment essay stating why they deserve this certain type of nomination and be awarded in the end. Since, ChatGPT has helped her to speed up the process of nominating the company by assisting her in writing these assessments, in the end this will contribute to her ability of achieving organizational goals as the goals for the organization are to achieve as many nominations as possible. Furthermore, Benjamin mentioned that ChatGPT can help him to get answers quicker, allowing him to give better customer service, which is one of the organizational goals. However, as he uses the words *"it will"*, it becomes evident that such a scenario has not yet transpired.

This section reveals that currently, all employees share the perception that ChatGPT can assist them to some degree in achieving organizational goals. They all thought it has the potential to help them more in the future. Right now, the system specifically helped them to speed up processes and thus increases their ability to achieve organizational goals faster. However, there were varying opinions among employees regarding the extent of ChatGPT's impact on their ability to achieve these goals. While some, like Sarah and Benjamin, stated that ChatGPT had helped them achieve more categories for nominations and potentially provide better customer service respectively, others like James believed that they would still achieve the same goals without ChatGPT, albeit with slightly longer timelines.

4.3. Chapter Summary

To conclude the findings, employees generally expressed a positive view of ChatGPT as it is useful for completing various tasks at work. Some participants mentioned that it is particularly helpful for standardized daily tasks. Despite this, there are concerns regarding its reliability and accuracy as some participants reported receiving incorrect information, consequently mentioning that they need to apply their critical thinking. Additionally, participants shared their thoughts on how ChatGPT might develop in the future and mentioned that it could become more significant in their job roles. Nevertheless, none of the participants expressed worry about ChatGPT replacing their jobs in the immediate future.

According to employees, ChatGPT has been helpful in improving the quality of written texts for employees by making them more professional and detailed, as well as broadening their scope on certain tasks. Although participants did not report an improvement in the number of outcomes of their work, they did experience that ChatGPT has significantly improved their task performance in terms of timesaving and efficiency. Consequently, they hope that they will be able to free up time to focus on the human and strategic aspect of their job to bring more value to both customers and colleagues. It was noted that some employees had the feeling that they need to adjust their skills while others need to develop additional competencies to effectively collaborate with ChatGPT. The consensus among employees was that staying relevant is crucial, and they need to actively exploit career development opportunities to remain competitive in their jobs. Finally, while all employees believe ChatGPT can help them achieve organizational goals to a certain extent, opinions vary regarding its impact on their ability to achieve those goals. Specifically, the employees experience that ChatGPT speeds up processes and thus increases their ability to achieve organizational goals faster.

5. Discussion

In this discussion chapter, we aim to connect the empirical findings of our study with the relevant literature and further analyze and discuss our findings in the context of existing research. Throughout our research, we have collected and analyzed data to answer our research question, and with the help of these findings and our literature review, we will provide a comprehensive answer to our research question: *How do employees experience their job performance with the emergence of ChatGPT?* By synthesizing the empirical evidence and theoretical perspectives from the literature, we aim to contribute to the broader understanding of the topic and provide insights into potential practical implications.

5.1. Employees' Experience of ChatGPT

The literature review highlights the importance of employees' perception and attitude towards new technologies for their successful implementation in organizations. In this chapter, we draw upon perspectives from the literature to understand how employees perceive ChatGPT and its potential influence on their job roles. We will discuss the readiness of the workforce to adopt and adapt to new technologies, as discussed by Kurup and Gupta (2022). Also, we draw upon Chuttur's (2009) work who explains the TAM, specifically we will draw upon the dimension of *perceived ease of use: The degree to which an individual believes that using a particular system would be free of physical and mental effort.* Moreover, we sought to discern, based on our interpretation of the empirical findings and the existing literature, whether there are indications of employee acceptance towards ChatGPT emergence in the workplace.

5.1.1. Readiness and Acceptance

The adoption of AI in organizations depends on several factors, including the readiness of the workforce to adopt and adapt to new technologies. Kurup and Gupta (2022) discuss this factor, which is an aspect that came up in our findings. While the employees are still in the process of experimenting with the technology, they have already implemented it into some of their daily tasks. Additionally, all participants suggest that their interaction with ChatGPT will increase in the future. Our findings also indicate that employees have a positive attitude towards ChatGPT, specifically

when it comes to its ability to enhance their efficiency. They view it as an assistant that helps them carry out repetitive and standardized tasks, which consequently enhances their productivity. This finding is consistent with the literature, which suggests that employees' perception and attitude towards new technologies are critical to their successful implementation in organizations. If employees believe that the new technology will enhance efficiency without jeopardizing their job security, they are more likely to adopt it. However, if they perceive it as a potential threat to their employment prospects, they are more likely to resist its adoption (Abukhzam & Lee, 2011; Morris, Venkatesh & Ackerman, 2005; Lichtenthaler, 2019).

Interestingly, none of the participants expressed concern that ChatGPT would replace their jobs in the near future, suggesting that they do not perceive it as a threat to their employment prospects. Instead, they suggested that basic knowledge and critical thinking are still required to work effectively with the tool. Additionally, as ChatGPT does not possess these abilities, we can assume that the employees expect the continuous need for their personal skills and knowledge within their job roles.

When interpreting the findings, we could find multiple links to the TAM, specifically when it comes to the general experiences with ChatGPT and the attitudes towards it. As stated in the literature, the model suggests that employees' beliefs regarding the ease of use and relative usefulness of AI technology play a significant role in its adoption (Ambati et al., 2020). The usefulness aspect relates directly to job performance as Davis (1985 cited in Chuttur, 2009) suggests, which we will touch upon later in the discussion. Furthermore, we believe that the ease-of-use aspect corresponds to employees' experiences and attitudes towards ChatGPT. As previously stated, ease of use refers to “the degree to which an individual believes that using a particular system would be free of physical and mental effort” (Chuttur, 2009, p.5).

Many employees suggested that they found ChatGPT easy to use. For example, by experimenting using simple prompts, and then quickly learning how to use it more effectively. This suggests that the tool is accessible and user-friendly. Moreover, the employees' diverse descriptions of how they use ChatGPT - analyzing data, creating summaries, gathering information, etc. - demonstrate the flexibility and versatility of the tool. ChatGPT's ability to perform various tasks with ease and

convenience seems to have contributed to employees' positive experiences with it. It is worth mentioning that, so far, employees are in the experimental phase of using the tool, gradually integrating it to aid with basic tasks. Consequently, the ease-of-use aspect may be influenced if ChatGPT is employed for increasingly complex tasks. The insights also highlight concerns about ChatGPT's reliability and accuracy, which may play a negative role in its ease of use. Participants reported receiving wrong information at times, which could cause users to question the tool's credibility and dependability. Furthermore, participants expressed caution about relying too heavily on ChatGPT, which suggests that the tool's ease of use must be balanced with critical thinking and decision-making to avoid potential errors.

The interviewees consistently voiced concerns that excessive reliance on ChatGPT's abilities could undermine users' critical thinking skills, which is consistent with the implications noted by Sallam et al. (2023). The literature raises several concerns about the development of ChatGPT, including the potential for generating partial or incorrect content, the automation of language-based jobs, and the possibility of undermining critical thinking and communication abilities among employees. This could potentially undermine the ability of employees to critically assess the information provided by ChatGPT. Our findings indicate that while some of these concerns are shared among employees, they do not perceive a decline in their own critical thinking abilities. In fact, our findings suggest that employees may need to apply their critical thinking skills even more extensively in order to work effectively with ChatGPT.

During our interviews, we discovered that employees interact with ChatGPT in various ways, from experimenting with it to using it for specific tasks in the workplace. We were interested in understanding if employees were ready to adopt this technology and if there were indications of their acceptance or rejection of it. After analyzing the findings and comparing them to the literature, it can be concluded that employees are leaning more towards acceptance of ChatGPT. We found no explicit indications of rejection, and employees' experiences and attitudes suggest a positive outlook towards using ChatGPT, despite some reservations. This conclusion is in line with the TAM, in particular, employees' experiences and attitudes towards ChatGPT appear to be linked to the ease-of-use aspect. Thus, our findings suggests that so far, employees may experience ChatGPT as a valuable addition to the workplace.

5.2. Employees' Experience of their Job Performance

Our literature highlights the importance of investigating how employees experience their job performance in light of the emergence of ChatGPT. As Sartori and Theodorou (2022) note, conducting a micro-level analysis is critical in gaining insights into how individuals interact with AI systems. Specifically, exploring the perspectives of employees who are often the end-users of AI technology in the workplace is imperative. This approach is referred to as the socio-technical perspective (Holton & Boyd, 2021; Sartori & Theodorou, 2022) and aims to comprehend the social and cultural context in which AI operates. This is crucial in understanding how humans perceive and utilize it. Hence, we will draw upon this perspective by outlining employees' experience of their job performance with the emergence of ChatGPT. Also, we draw upon Chuttur's (2009) work who explains the TAM, specifically we will draw upon the dimension of
perceived usefulness: The degree to which an individual believes that using a particular system would enhance his/her job performance. Furthermore, we will draw upon the three dimensions of job performance, established in our literature review *(1) task performance, (2) actively exploiting career development opportunities* and *(3) achieving organizational goals*.

5.2.1. Shifting Focus

The first dimension we looked at is task performance, as per our definition of job performance. We have found similarities with Morris, Venkatesh and Ackerman (2005) view on the impact of AI on task performance. They argue that new technologies, such as AI, are more likely to be adopted by employees when they believe that it will enhance efficiency and reduce workload without jeopardizing their job security. Our empirical data shows that employees experience ChatGPT has had a positive impact on the task performance of employees. Specifically, the use of ChatGPT has allowed employees to automate routine work, save time, and complete their work with greater efficiency, signifying that they are more likely to adopt ChatGPT more in their daily work, as discussed in the previous chapter. Moreover, employees believe that with the help of ChatGPT, they will have more time for extra activities, such as focusing on strategic- or human-centric aspects. This is consistent with Opatha's (2015) argument that saving time on obsolete aspects of the job is important, to increase efficiency. However, Acemoglu and Restrepo's (2016) argument that the number of outputs, i.e. quantity, increases when certain processes are automated

by AI, was not mentioned by our employees. None of the employees stated that ChatGPT allowed them to increase the number of outputs delivered. They only mentioned that they are more efficient and productive in their day with the help of ChatGPT.

We would like to add to this that we found similarities with the IT productivity paradox, which we identified as being an assisting concept in our discussion. Karr-Wisniewski and Lu (2010) explain the IT productivity paradox as "individuals very often must face the dilemma of technology use—increased usage of technology tools does not always lead to increased work productivity; rather, sometimes it actually can be counterproductive" (p.1061). Brynjolfsson (1993) introduced five different reasons for this paradox, one of them involves a probable delay in time resulting from a learning curve. The concept suggests that the implementation of IT is connected with a learning curve, and organizations need time to grasp the technology before its advantages become apparent (Brynjolfsson, 1993). What our findings suggest is that while employees believe their productivity can increase with the implementation of new technology, they have not yet experienced the tangible outcomes to support this claim. Instead, they feel that they have more time for other activities, such as training to understand the new technology, as well as potentially having more time for human interaction work. However, this additional training may not necessarily lead to increased productivity, as they will spend the freed-up time on following these additional trainings. Many employees also expressed the need to keep up with the latest trends in their field, such as the use of ChatGPT, which we will discuss later in this chapter. Another reason for the IT productivity paradox highlighted by Brynjolfsson (1993) is that IT plays a crucial role as a mediator and impacts organizational processes, but it does not directly affect outcomes. Our findings are in line with this argument as our employees suggest that ChatGPT will help to automate processes that the employees manually work on now, though they do not mention that it has helped them to increase the number of outcomes. Therefore, while employees anticipate increased productivity with the adoption of new technology, it remains unclear whether this will actually be the case, highlighting a connection to the IT productivity paradox.

Additionally, the literature highlights the importance of quality of work delivered as a crucial component of task performance, as it validates the performance of an employee on a specific task (Sonnentag, Volmer & Spychala, 2008). Our employees revealed that ChatGPT has not come to

the extent that it has increased the quality of all their work, yet it has helped them to improve the quality of written texts, making them more professional, detailed, and business-like. This is in line with what the literature says about ChatGPT's capabilities, as Mattas (2023) stated that ChatGPT has the benefit of generating high-quality texts.

As previously mentioned, employees have reported that ChatGPT helps to streamline their daily work by automating processes. This, in turn, can allow them to allocate their time to more human-centric or strategic aspects of their job. This finding is particularly interesting, as it aligns with existing literature that suggests AI can free up employees' time to focus on tasks that require human expertise and cannot be easily automated (Bai, 2011 & Mattas, 2023). This shift in focus in the workplace is significant, as it moves away from solely emphasizing output creation and timely delivery, which can now be automated with the help of ChatGPT. Instead, employees can prioritize the human aspect of their work, which requires their unique skills and knowledge. This has the potential for organizations to bring more value to their customers. It is worth noting that although employees have expressed optimism that ChatGPT will free up more time for human-centric work tasks, this sentiment is mostly based on future expectations rather than tangible evidence. Moreover, there is a concern that the IT productivity paradox may come into play, as the implementation of ChatGPT in the workplace will likely require additional training for employees as they also suggested they will use it more for complicated tasks and ChatGPT may advance in the direction that additional training is required. Resulting in the fact that the use of ChatGPT may offset any potential gains in productivity. It remains to be seen whether the promised benefits of ChatGPT will outweigh the costs of learning to use the technology effectively.

As per our definition of job performance, here we focus on the second dimension that involves actively exploiting career development opportunities. It is noteworthy that some participants reported that they need to adjust existing skills to work with ChatGPT, while others need to develop additional competencies to effectively collaborate with this technology. Furthermore, they did emphasize the importance of crafting optimal prompts to obtain the best possible answers, suggesting that by actively interacting with the tool, they are learning how to get better results. Additionally, literature suggests that working with AI systems often requires individuals to enhance their critical thinking abilities (Lee, Davari, Sing & Pandhare, 2018; Sikdar, 2018;

Wamba-Taguimdje et al., 2020; Di Francescomarino & Maggi, 2020). All participants recognized the need to exercise critical thinking when evaluating the information generated by ChatGPT. However, none explicitly identified this as a skill enhancement but as mentioned before, they feel like they may need to apply it more often in order to work effectively with the tool.

Moreover, some participants shared that their existing skills were improved with the assistance of ChatGPT, such as enhancing their writing capabilities. Although this is specific to their experience with ChatGPT and not necessarily generalizable to other AI systems, the literature supports the notion that employees will improve on certain skills when collaborating with AI systems (Malik, Baig & Manzoor, 2020). Thorp (2023), reported that the output ChatGPT is giving you is not always correct, and advises people who are using it to be critical towards the information it is giving you, ultimately, trusting more in their own capabilities and prior knowledge. While this aspect was briefly discussed in the previous section, we believe that it has a connection to the topic of developing skills, as it involves retaining the fundamental knowledge that employees possess and preventing the deterioration of their critical thinking abilities.

On top of this, literature does state that employees need to be retrained to develop skills to work with AI systems (Lee, Davari, Sing & Pandhare, 2018; Sikdar, 2018; Wamba-Taguimdje et al., 2020; Di Francescomarino & Maggi, 2020). None of the employees stated that they have received any training from their company developing their skills to work with ChatGPT. Although some employees mentioned that their organizations are looking into providing training to help them develop the skills needed, it has not come to that yet. The employees did mention that they believe they will use ChatGPT more in the future, suggesting that training will be needed. Additionally, as mentioned before, employees experience that ChatGPT is freeing up time in their daily schedules. Some also mention that this extra time in their schedule gives them the opportunity to actively exploit career development opportunities. When ChatGPT advances where it will be able to automate mundane tasks without the involvement of the employees, they believe they can use that time to develop themselves to stay relevant in the field. This is an interesting aspect as the literature states that actively exploiting career development opportunities enhances job performance (Craig, Allen, Reid, Riemenschneider & Armstrong, 2013; Lee & Lee, 2018; Moon & Choi, 2016; Sturges, Conway, Guest & Liefooghe, 2005; Weng, McElroy, Morrow & Liu, 2010).

Our findings suggest that the emergence of ChatGPT in the workplace will require employees to become more specialized. As ChatGPT is capable of automating most of the routine and mundane tasks, employees will need to focus on tasks that cannot be automated, such as problem-solving and critical thinking. This will necessitate a shift towards more specialized roles, where employees possess the necessary skills to work on complex tasks that require human expertise. As AI and automation become increasingly prevalent in the workforce, employees must equip themselves with the necessary skills to remain relevant and thrive in their careers. This implies that organizations need to invest in training and development programs to help employees acquire the skills required for the new work environment. Again, here we see a relationship with the IT productivity paradox, as employees will need to dedicate the more time they have now on training and development. Especially, on training and development needed to develop skills required for the new work environment, such as specialized skills in a certain field that cannot be automated. Hence, they will most likely not have the possibility to use this extra time to deliver more outcomes.

Benbya, Davenport and Pachidi (2020) state, that employees experience the feeling of needing to stay relevant in the field with the emergence of AI in order to meet the demands of the changing workplace. Our findings show that employees feel the pressure to stay relevant in the field, since all of them believe that ChatGPT will prevail more in their work in the future. Thus, they feel that being able to work with AI systems such as ChatGPT will become a requirement in their jobs. Hence, they are using the extra time to actively exploit career development opportunities in order to stay relevant in the field. Interestingly, in the beginning of the interviews when we asked employees if they had any concerns regarding ChatGPT they mentioned that they are not scared of job displacement, because of ChatGPT. Though, when we asked our employees why they feel the need to stay relevant, some of them answered that they have the feeling that otherwise they will become obsolete because they are lacking skills. Specifically, it highlights a potential contradiction between employees' initial lack of fear of job displacement due to ChatGPT, and their subsequent concern about becoming obsolete because they lack the necessary skills. Brynjolfsson and Mitchell (2017) and Tschang and Almirall (2021) noted that AI and automation can lead to increased fear among employees of being replaced by machines. The study by Gamkrelidze, Zouinar and Barcellini (2021) also supports this idea, as some employees in their

study confirmed their fear of being replaced by machines. Our findings suggest though that employees do not feel scared to be replaced by machines, but rather feel the need to stay relevant in the field to not become obsolete. The finding that some employees expressed a need to stay relevant by acquiring new skills is consistent with the literature. The introduction of AI systems can lead employees to envision potential transformations in their work, and some may even modify their work activities in order to preserve their jobs (Gamkrelidze, Zouinar & Barcellini, 2021).

If the implementation of ChatGPT leads to a significant increase in efficiency or productivity, it's possible that some employees may have less work to do, which could lead to a reduction in the workforce. It is worth considering that the participants may be experiencing cognitive dissonance because they hold two conflicting beliefs: *(1) ChatGPT does not currently pose a significant threat to their job security*, and *(2) they need to stay relevant to avoid being replaced in the future.* To reduce the discomfort of cognitive dissonance, participants may engage in rationalization or self-justification. In this case, participants may rationalize that their current skills and knowledge are sufficient to keep their jobs safe from ChatGPT, while also acknowledging the importance of staying relevant to avoid future job loss. This self-justification may take the form of autosuggestion or positive self-talk, where participants tell themselves that everything will be fine while still worrying about the potential impact of ChatGPT on their job security.

Furthermore, Benbya, Davenport and Pachidi (2020) touch upon the changing workplace with the emergence of AI in organizations. Our findings are in line with the literature as employees feel the requirements and expectations of their job are changing. In the future, they expect that they will have to be able to work with AI systems such as ChatGPT and need to be able to deliver work faster and provide better customer service. All these findings show that the attention in the workplace is moving away from output generation to more of the human-centric and strategic aspect of their work. Though, as previously mentioned, this freed-up time may be needed to keep up with the technological advancement in ChatGPT and we wonder whether the employees will actually have more time for the human-centric part of their work, as was highlighted in the IT productivity paradox.

Another aspect we looked at with how employees experience their job performance with the emergence of ChatGPT, is their ability to achieve organizational goals, as per our identified third

dimension of job performance. As Pandey (2019) states, that one aspect of job performance is the contribution to the achievement of organizational goals. Our employees experienced that ChatGPT has not yet increased their ability to achieve organizational goals, though they all think that it will. Some employees experience that they can achieve organizational goals faster with the emergence of ChatGPT due to the automation of tasks, speeding up processes. Some think that they will still be able to achieve the same organizational goals, though it will take them more time without the help of ChatGPT. Implying that ChatGPT has not yet contributed to their ability to achieve organizational goals.

As previously discussed, with the increased efficiency, the employees expect to have more time to focus on the human-centric aspect of customer service. Hence, they believe they will be able to deliver better quality work to their customer since they will have more time to strengthen relationships with their clients. Therefore, we can conclude that employees believe that they will be able to further contribute to achieving organizational goals with the help of ChatGPT. This is in line with what the literature is saying, as AI systems, such as ChatGPT, have the ability to automate mundane tasks ultimately shifting the attention in the workplace to the human-centric aspect (Brynjolfsson & Mitchell, 2017; Tschang & Almirall, 2021). However, employees also believe that the tool will be further implemented and will continue to develop within their organizations. We can assume that in the future, it will be used to assist with more complex tasks, requiring employees to focus on keeping up with the development, rather than focusing on human-centric aspects, and consequently achieving organizational goals. Once again, linking to the IT productivity paradox.

Coming back to the work of Chuttur (2009), we see that the employees experience that ChatGPT has the potential to enhance their job performance. Using the TAM this would imply that the employees are thus leaning more towards incorporating ChatGPT in their daily work to enhance their job performance.

Down below we have summarized some of our main findings in a model, see figure one. Our model highlights the initial influence of ChatGPT on employee experience of their job performance. With the automation of standardized tasks through the integration of this technology,

employees experience an increase in their job performance. This, in turn, frees up additional time that can be allocated towards other activities. For instance, employees can engage in strategic decision-making or focus on human-centric tasks, leading to enhanced outcomes for the organization. However, it is important to note that our findings also align with the IT productivity paradox. Despite the initial gains in efficiency, employees face pressure to keep pace with advancing technology. Consequently, the extra time created by ChatGPT is often consumed by the need to stay updated on the latest trends and improve interaction with the technology. As a result, the net effect on job performance tends to be minimal, with limited overall improvement.

It is important to note that the model we created is based solely on the experiences and perspectives shared by the study participants. It is not a definitive representation of the true impact of ChatGPT on job performance. While the findings provide valuable insights, further research and empirical evidence are needed to fully understand and ascertain the actual effects of ChatGPT on job performance.

5.2.2. Figure 1: Summary of Main Findings

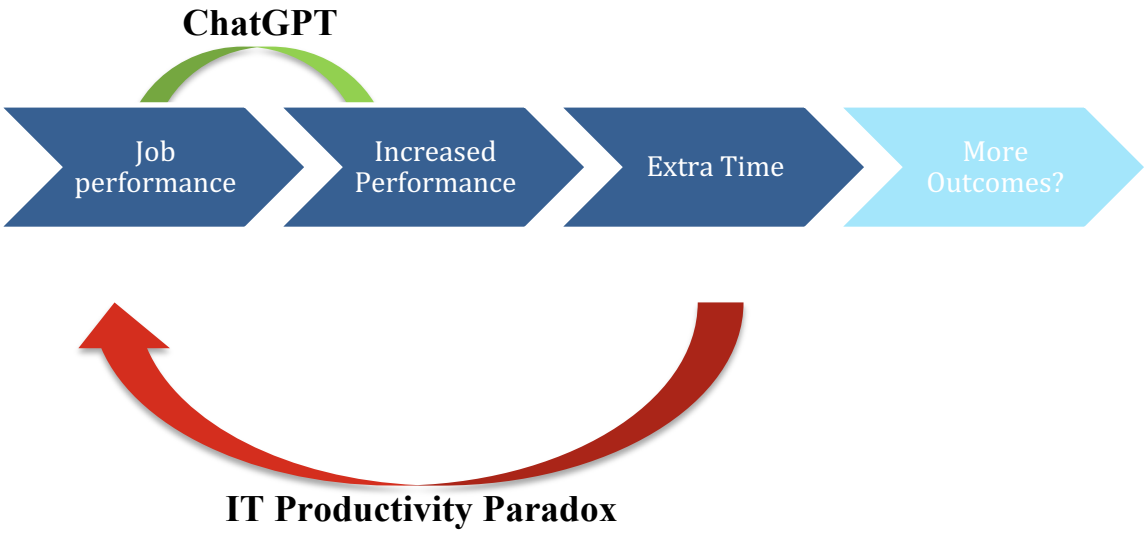

Figure 1: Own representation

5.3. Chapter Summary

In this chapter we connected our findings to the existing literature and provided a comprehensive answer to our research question. We explored the various ways in which employees interacted with ChatGPT, ranging from experimental usage to specific task-oriented applications within the workplace. Upon analyzing the findings and comparing them with existing literature, we can conclude that employees are leaning towards accepting ChatGPT. We found no explicit indications of rejection, and employees' experiences and attitudes generally suggest a positive outlook on using ChatGPT, albeit with some reservations. This conclusion aligns with the TAM, particularly regarding employees' experiences and attitudes towards the ease of use associated with ChatGPT. Hence, our findings indicate that employees perceive ChatGPT as a valuable addition to the workplace.

Significantly, our findings demonstrate that ChatGPT has a positive impact on task performance by enabling employees to automate routine work, save time, and enhance overall efficiency. Additionally, employees experience that ChatGPT improves the quality of their written texts. While employees anticipate increased productivity, it remains unclear whether this expectation will materialize, thereby highlighting a connection to the IT productivity paradox. Placing pressure on employees to maintain relevant in their field by developing their AI system skills to keep up with the fast developments. Furthermore, employees experience a shift in their attention within the workplace, where ChatGPT's automation of mundane tasks may allow them to allocate more time to human-centric aspects of their work, potentially resulting in enhanced customer value. Nevertheless, whether this anticipated outcome will be realized remains uncertain, as emphasized by the IT productivity paradox. We also observed that ChatGPT creates a sense of urgency for employees to actively pursue career development opportunities, as they feel compelled to stay relevant. Our findings align with existing literature, which highlights the changing workplace dynamics attributed to the rise of AI in organizations. Employees recognize the evolving demands and expectations of their roles.

Furthermore, our findings indicate that employees are experiencing a sense of urgency to stay up to date in their field due to the rapid and significant impact of ChatGPT on their work. As

previously mentioned, ChatGPT has been metaphorically described as a "huge tsunami wave" sweeping through the organization, profoundly affecting daily work tasks. This metaphor emphasizes the magnitude of change brought about by ChatGPT, and employees feel the pressure to catch up with these developments in order to maintain relevance. Consequently, they actively seek career development opportunities to acquire the skills and knowledge required for effective collaboration with AI systems like ChatGPT. However, employees did not express concerns about job displacement resulting from this new technology, indicating potential cognitive dissonance as they hold conflicting beliefs regarding ChatGPT's impact on job security. To reconcile this cognitive dissonance, self-justification in the form of autosuggestion may prevail. Moreover, employees feel that ChatGPT will aid their ability to achieve organizational goals by expediting goal attainment and facilitating increased attention to the human-centric dimensions of their jobs. Once again, this remains uncertain as ChatGPT develops and may require employees to keep up with the technology. Finally, we presented a model which summarizes the main findings of our study.

All in all, we can conclude from this that the employees experience a modest improvement in their job performance with the emergence of ChatGPT.

6. Conclusion

As we reach the end of our study, we would like to summarize our key findings and contributions. Throughout this research, we explored how employees experience their job performance with the emergence of ChatGPT. We were curious to find out how these experiences might have been influenced by this powerful tool. In the following chapter, we will discuss the theoretical contributions of our study, outlining how our research contributes to the broader literature on AI in the workplace. As with any research, our study also has limitations that should be acknowledged. We will reflect on these limitations and provide suggestions for future research in this area. By doing so, we hope to contribute to a deeper understanding of the potential implications of ChatGPT on employee experiences and job performance. Furthermore, we will outline the practical implications of our study for organizations considering the adoption of ChatGPT or similar AI technologies in their workplace. Consequently, we hope to provide guidance for organizations on how to maximize the benefits of ChatGPT while mitigating its potential negative effects on employee experiences and job performance.

6.1. Theoretical Contributions

At the beginning of our research, we emphasized that many organizations have started to adapt AI technologies, specifically now organizations have started to look at implementing NLP AI such as ChatGPT in their internal processes. However, with ChatGPT having the potential to play a huge role in various job roles, the experience of employees in relation to their job performance with the emergence of this new technology has yet to be thoroughly researched. Therefore, the research question, "*How do employees experience their job performance with the emergence of ChatGPT?*" is answered aligned with Holton and Boyd, (2021) and Sartori and Theodorou (2022) socio-technical view. Which highlights the importance of exploring employees' experiences with the use of AI, as they are often the end-users of AI systems in the workplace. On that note, many studies have been conducted to explore the effects of AI in the workplace (Benbya, Davenport & Pachidi, 2020; Mayer, Strich & Fiedler, 2020; Younis & Adel, 2020), and what is needed from organizations to effectively implement such a technological system (Lee et al., 2018; Sikdar, 2018; Wamba-Taguimdje et al., 2020; Di Francescomarino & Maggi, 2020). Furthermore, Bhargava, Bester and Bolton (2021) explored in their study the employees' perspective towards RAIA.

Bhargava et al. (2021) discovered that positive perceptions of RAIA implementation are more likely to contribute to increased job security and employability. Conversely, negative perceptions of RAIA implementation can create a perception of risk to job security and employability. While this study explores employees' perspectives on RAIA, they do not explore their view on their job performance nor do they explore a specific type of AI, such as ChatGPT. Now, the employees' experience of their job performance has not extensively been researched with the emergence of ChatGPT. Given the rapid integration of this technology into organizations, we were intrigued to delve deeper into its implications. By delving into the multiple dimensions of job performance, as outlined in Chapter Two, our research bridges this gap by offering empirical findings on employees' firsthand experiences with their job performance. Specifically, we investigated their perspectives regarding the influence of ChatGPT on their job performance. These insightful findings contribute to a deeper understanding of the broader implications of ChatGPT within the workplace context.

Therefore, through the insights that we received from these employees, our study provides additional evidence that supports existing studies on the role of AI and automation in the workforce. Specifically, on the effects of ChatGPT on employees' experience of their job performance. Our argument is that employees experience ChatGPT to have a moderately positive impact on their job performance; however, its full potential remains untapped, leading to a limited experience of its benefits at present. Our study offers a nuanced perspective by highlighting that employees may not fear job displacement with the emergence of ChatGPT, but nonetheless feel the need to stay relevant to avoid becoming obsolete, suggesting cognitive dissonance. Furthermore, our study also gives a nuanced perspective on the IT productivity paradox. As of now, it is uncertain whether ChatGPT will result in greater productivity rather it calls for a shift in focus at the workplace. According to numerous employees, ChatGPT is expected to streamline their daily routines by automating mundane tasks. Consequently, they express their intention to utilize this newfound time to prioritize more human-centric work. Yet, keeping the IT productivity paradox in mind it remains uncertain whether this extra time will be spent on human-centric work or additional training that is needed to keep effectively using ChatGPT.

In summary, our research sheds a novel light on ChatGPT, introducing the valuable employee viewpoint to the ongoing discourse surrounding AI implementation in organizations. Through our exploration of employees' experience of their job performance with the emergence of ChatGPT, we have uncovered novel insights that shed light on the potential role this emerging technology may play in the future.

6.2. Limitations of the Study

It is important to acknowledge that there are several limitations to our research that should be taken into consideration. In this chapter we focus on the limitations that were not mentioned in the methodology. First, the study could have benefited from a larger sample size and a longer time frame, which could have allowed for a more nuanced understanding of the topic. Additionally, given the novelty of the technology, there are still many unknowns regarding its long-term influence on employee experience of their job performance. Nonetheless, it was interesting to observe how this emerging technology has already played a role in how employees experience their work.

Furthermore, because of the novelty of the technology, we only interviewed employees from the IT industry, and it would be interesting to explore how ChatGPT could influence employee experiences in different sectors. This is especially important because the nature of work and tasks can vary greatly across industries, and the introduction of ChatGPT may play a different role, depending on the sector.

It is important to acknowledge that our study was conducted during a specific point in time, and the use of ChatGPT in the workplace is likely to evolve and change rapidly. Additionally, our study relied on a relatively small sample of employees who participated in interviews. While we made efforts to ensure that the sample was diverse, we recognize that the views and experiences of these individuals may not be representative of the broader population of managers in different organizations. As such, our findings may be challenging to generalize.

6.3. Opportunities for Further Research

It is worth noting that our findings may suggest a form of cognitive dissonance among the employees. While they express a lack of fear regarding job displacement due to ChatGPT, they also acknowledge the importance of staying relevant in the field to avoid future job loss. This may indicate a form of self-justification or autosuggestion, where employees try to reduce the discomfort of cognitive dissonance by rationalizing that their current skills and knowledge are sufficient to keep their jobs safe from ChatGPT. As researchers, we cannot know for sure if this is the case, but it is an interesting avenue for future research to explore further. For example, the ways in which employees navigate the potential tension between the benefits and risks associated with ChatGPT emergence.

Furthermore, it would be interesting to explore the potential manifestation of the IT productivity paradox in the context of ChatGPT implementation, this presents another avenue for future research. As our study revealed that while employees have shown optimism about ChatGPT's potential to enhance time allocation for human-centric work tasks, this positive sentiment predominantly rests on future projections rather than concrete evidence. Furthermore, there is a valid concern that the implementation of ChatGPT in the workplace may trigger the IT productivity paradox, where the need for additional employee training could potentially counterbalance any productivity gains or the achievement of organizational goals. Hence, it would be interesting to investigate whether the additional training required for employees to effectively utilize ChatGPT offsets any value or productivity gains the technology might offer. By conducting empirical studies and examining the interplay between training efforts and actual value or productivity outcomes, researchers can gain valuable insights into the complex dynamics involved in deploying ChatGPT and weigh the costs against the promised benefits.

Our research revealed that the emergence of ChatGPT might push for further specialization in the workforce. This finding highlights an opportunity for further research to explore the extent to which ChatGPT is driving the need for specialized skills and knowledge in the workplace. This could involve investigating the specific types of jobs and industries that are most affected by ChatGPT's emergence, as well as the ways in which employees are adapting to the increasing

demand for specialization. Furthermore, it may be important to consider the potential implications of this trend for both employees and organizations, such as the impact on career paths and the need for ongoing training and development. By delving deeper into these issues, researchers can gain a more comprehensive understanding of how ChatGPT is shaping the future of work and what steps can be taken to prepare for the changing landscape.

Our research aimed to contribute to a broader understanding of the relationship between ChatGPT and organizations. While our study provides valuable insights into how employees currently experience the technology, it is acknowledged that ChatGPT will continue to evolve and develop over time. Therefore, future research is needed to build upon our findings and further enhance our understanding of how ChatGPT influences organizational dynamics and employee experiences in the long run.

6.4. Practical Implications

As ChatGPT increasingly integrates into the daily work of employees, we believe our study goes beyond theoretical contributions to offer practical implications that organizations should consider when adopting ChatGPT or similar AI technologies in their workplace. By extracting insights from our research, we provide valuable guidance for organizations seeking to navigate the effective integration of ChatGPT within their operational contexts.

Based on our research, it is likely that employees will continue to use ChatGPT even if their organizations do not actively initiate its adoption. The insights gained from this study could help organizations better understand how their employees perceive the introduction of ChatGPT, and what factors may impact their overall job performance and experience.

By acknowledging the potential benefits and limitations of ChatGPT, organizations can take a more strategic approach to its implementation, ensuring that the technology is used in a way that enhances employee productivity and well-being, while minimizing potential negative effects. For example, overreliance of the tool or emotional strain resulting from the pressure to continuously keep pace with the technology. Additionally, understanding the perspectives and experiences of

employees can help organizations identify areas for improvement and make necessary adjustments to maximize the benefits of ChatGPT.

Another practical implication of our study is that organizations should consider providing adequate training and support for employees who are using ChatGPT. This can help to ensure that employees are using the technology effectively and efficiently, which can in turn enhance their job performance and reduce potential stress or frustration associated with using a new technology.

Furthermore, the shift towards more specialized roles will necessitate a workforce that possesses the necessary skills to work on complex tasks that require human expertise. To remain relevant and thrive in their careers, employees must equip themselves with the skills necessary for the new work environment. This implies that organizations need to ride the wave of technology by investing in training and development programs to help employees acquire the skills required for these new roles. By understanding the implications of ChatGPT, organizations can better prepare for the changes that lie ahead.

7. References

Abukhzam, M. & Lee, A. S.-H. (2011). Workforce Attitude on Technology Adoption and Diffusion, 2011

Acemoglu, D. & Restrepo, P. (2016). The Race Between Machine and Man: Implications of Technology for Growth, Factor Shares and Employment, w22252, Cambridge, MA: National Bureau of Economic Research, p.w22252, Available Online: http://www.nber.org/papers/w22252.pdf [Accessed 10 April 2023]

Acemoglu, D. & Restrepo, P. (2017). Robots and Jobs: Evidence from US Labor Markets, w23285, Cambridge, MA: National Bureau of Economic Research, p.w23285, Available Online: http://www.nber.org/papers/w23285.pdf [Accessed 10 April 2023]

AlSheibani, S., Cheung, Y. & Messom, C. (2018). Artificial Intelligence Adoption: AI-Readiness at Firm-Level, *PACIS 2018 Proceedings*

Alvesson, M. & Kärreman, D. (2007). Constructing Mystery: Empirical Matters in Theory Development, *Academy of Management Review*, vol. 32, no. 4, pp.1265–1281

Alvesson, M. & Sköldberg, K. (2018). Reflexive Methodology New Vistas for Qualitative Research, Third edition., Los Angeles: SAGE

Ambati, L. S., Bojja, G. R., Narukonda, K. & Bishop, D. (2020). Factors Influencing the Adoption of Artificial Intelligence in Organizations – From an Employee's Perspective, *MWAIS,* no. 20

Arslan, A., Cooper, C., Khan, Z., Golgeci, I. & Ali, I. (2022). Artificial Intelligence and Human Workers Interaction at Team Level: A Conceptual Assessment of the Challenges and Potential HRM Strategies, *International Journal of Manpower*, vol. 43, no. 1, pp.75–88

Arulkumaran, K., Deisenroth, M. P., Brundage, M. & Bharath, A. A. (2017). A Brief Survey of Deep Reinforcement Learning, IEEE Signal Processing Magazine, vol. 34, no. 6, pp.26–38

Austin, J. T. & Villanova, P. (1992). The Criterion Problem: 1917-1992., *Journal of Applied Psychology*, vol. 77, no. 6, pp.836–874

Autor, D. & Salomons, A. (2018). Is Automation Labor-Displacing? Productivity Growth, Employment, and the Labor Share, Working Paper, 24871, Available Online: https://www.nber.org/papers/w24871 [Accessed 10 April 2023]

Bai, S. A. (2011). Artificial Intelligence Technologies in Business and Engineering, in *International Conference on Sustainable Energy and Intelligent Systems (SEISCON 2011)*, International Conference on Sustainable Energy and Intelligent Systems (SEISCON 2011), Chennai, India, 2011, Chennai, India: IET, pp.856–859, Available Online: https://digital-library.theiet.org/content/conferences/10.1049/cp.2011.0486 [Accessed 21 February 2023]

Benbya, H., Davenport, T. & Pachidi, S. (2020). Artificial Intelligence in Organizations: Current State and Future Opportunities, *MIS Quarterly Executive*, vol. 19, pp.9–21

Benbya, H., Pachidi, S. & Jarvenpaa, S. (2021). Special Issue Editorial: Artificial Intelligence in Organizations: Implications for Information Systems Research, Journal of the Association for Information Systems, vol. 22, no. 2, pp.281–303

Bernardin, H. J. & Beatty, R. W. (1984). Performance Appraisal: Assessing Human Behavior at Work, Boston, Ma: Kent Pub. Co

Bernardin, H. J. & Russell, J. E. A. (1998). Human Resource Management : An Experiential Approach, 2nd ed., [e-book] Boston: Irwin/McGraw-Hill, Available Online: http://lib.ugent.be/catalog/rug01:002066545

Bhargava, A., Bester, M. & Bolton, L. (2021). Employees' Perceptions of the Implementation of Robotics, Artificial Intelligence, and Automation (RAIA) on Job Satisfaction, Job Security, and Employability, *Journal of Technology in Behavioral Science*, vol. 6, no. 1, pp.106–113

Borman, W. C. (1991). Job Behavior, Performance, and Effectiveness., in *Handbook of Industrial and Organizational Psychology, Vol. 2, 2nd Ed.*, Palo Alto, CA, US: Consulting Psychologists Press, pp.271–326

Braganza, A., Chen, W., Canhoto, A. & Sap, S. (2021). Productive Employment and Decent Work: The Impact of AI Adoption on Psychological Contracts, Job Engagement and Employee Trust, Journal of Business Research, vol. 131, pp.485–494

Braun, V. & Clarke, V. (2013). Successful Qualitative Research: A Practical Guide for Beginners, Los Angeles: SAGE

Bryman, A., Bell, E. & Harley, B. (2022). Business Research Methods, Sixth edition., Oxford, United Kingdom ; New York, NY: Oxford University Press

Brynjolfsson, E. (1993). The Productivity Paradox of Information Technology, *Communications of the ACM*, vol. 36, no. 12, pp.66–77

Brynjolfsson, E. & Mitchell, T. (2017). What Can Machine Learning Do? Workforce Implications, *Science*, vol. 358, no. 6370, pp.1530–1534

Caillier, J. G. (2010). Factors Affecting Job Performance in Public Agencies, *Public Performance & Management Review*, vol. 34, no. 2, pp.139–165

Cheng, E. W., Li, H. & Fox, P. (2007). Job Performance Dimensions for Improving Final Project Outcomes, *Journal of Construction Engineering and Management*, vol. 133, no. 8, pp.592–599

Choi, Y. (2021). A Study of Employee Acceptance of Artificial Intelligence Technology, *European Journal of Management and Business Economics*, vol. 30, no. 3, pp.318–330

Chuttur, M. (2009). Overview of the Technology Acceptance Model: Origins, Developments and Future Directions, *Sprouts: Working Papers on Information Systems,* vol. 9, no. 37, pp.1–21

Craig, C. A., Allen, M. W., Reid, M. F., Riemenschneider, C. K. & Armstrong, D. J. (2013). The Impact of Career Mentoring and Psychosocial Mentoring on Affective Organizational Commitment, Job Involvement, and Turnover Intention, *Administration & Society*, vol. 45, no. 8, pp.949–973

Creswell, J. W. (2012). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, 4th ed., Boston: Pearson

DeCanio, S. J. (2016). Robots and Humans – Complements or Substitutes?, *Journal of Macroeconomics*, vol. 49, no. 1, pp.280–291

Decker, M., Fischer, M. & Ott, I. (2017). Service Robotics and Human Labor: A First Technology Assessment of Substitution and Cooperation, *Robotics and Autonomous Systems*, vol. 87, pp.348–354

Dekimpe, M. G. (2020). Retailing and Retailing Research in the Age of Big Data Analytics, *International Journal of Research in Marketing*, vol. 37, no. 1, pp.3–14

Deloitte. (2021). Becoming an AI-Fueled Organization, State of AI in the Enterprise, 4th Edition, *Deloitte Insights*, Available Online: https://www2.deloitte.com/us/en/insights/focus/cognitive-technologies/state-of-ai-and-intelligent-automation-in-business-survey.html [Accessed 28 February 2023]

Deng, J. & Lin, Y. (2023). The Benefits and Challenges of ChatGPT: An Overview, *Frontiers in Computing and Intelligent Systems*, vol. 2, no. 2, pp.81–83

Di Francescomarino, C. & Maggi, F. M. (2020). Preface to the Special Issue on Artificial Intelligence for Business Process Management 2018, *Journal on Data Semantics*, vol. 9, no. 1, pp.1–1

Dogru, A. K. & Keskin, B. B. (2020). AI in Operations Management: Applications, Challenges and Opportunities, *Journal of Data, Information and Management*, vol. 2, no. 2, pp.67–74

Duarte, F. (2023). Number of ChatGPT Users (2023), Exploding Topics, Available Online: https://explodingtopics.com/blog/chatgpt-users [Accessed 9 April 2023]

Finlay, L. (2002). Negotiating the Swamp: The Opportunity and Challenge of Reflexivity in Research Practice, Qualitative Research, vol. 2, no. 2, pp.209–230

Frey, C. B. & Osborne, M. A. (2017). The Future of Employment: How Susceptible Are Jobs to Computerisation?, *Technological Forecasting and Social Change*, vol. 114, pp.254–280

Gamkrelidze, T., Zouinar, M. & Barcellini, F. (2021). Working with Machine Learning/Artificial Intelligence Systems: Workers' Viewpoints and Experiences, in European Conference on Cognitive Ergonomics 2021, ECCE 2021: European Conference on Cognitive Ergonomics 2021, Siena Italy, 26 April 2021, Siena Italy: ACM, pp.1–7, Available Online: https://dl.acm.org/doi/10.1145/3452853.3452876 [Accessed 20 April 2023]

Guo, B., Zhang, X., Wang, Z., Jiang, M., Nie, J., Ding, Y., Yue, J. & Wu, Y. (2023). How Close Is ChatGPT to Human Experts? Comparison Corpus, Evaluation, and Detection, arXiv:2301.07597, Available Online: http://arxiv.org/abs/2301.07597 [Accessed 4 April 2023]

Hasan, A. R. (2022). Artificial Intelligence (AI) in Accounting & Auditing: A Literature Review, *Open Journal of Business and Management*, vol. 10, no. 01, pp.440–465

Holton, R. & Boyd, R. (2021). 'Where Are the People? What Are They Doing? Why Are They Doing It?'(Mindell) Situating Artificial Intelligence within a Socio-Technical Framework, *Journal of Sociology*, vol. 57, no. 2, pp.179–195

Howard, J. (2019). Artificial Intelligence: Implications for the Future of Work, *American Journal of Industrial Medicine*, vol. 62, no. 11, pp.917–926

Hughes, C., Robert, L., Frady, K. & Arroyos, A. (2019). Artificial Intelligence, Employee Engagement, Fairness, and Job Outcomes, in *Managing Technology and Middle- and Low-Skilled Employees*, [e-book] Emerald Publishing Limited, pp.61–68, Available Online: https://www.emerald.com/insight/content/doi/10.1108/978-1-78973-077-720191005/full/html [Accessed 4 February 2023]

Karr-Wisniewski, P. & Lu, Y. (2010). When More Is Too Much: Operationalizing Technology Overload and Exploring Its Impact on Knowledge Worker Productivity, *Advancing Educational Research on Computer-supported Collaborative Learning (CSCL) through the use of gStudy CSCL Tools*, vol. 26, no. 5, pp.1061–1072

Katrak, M. (2022). The Role of Language PredictionModels in ContractualInterpretation: The ChallengesandFutureProspects of GPT-3, in *Legal Analytics: The Future of Analytics in Law*, 1st edn, [e-book] New York: Chapman and Hall/CRC, pp.47–62, Available Online: https://doi.org/10.1201/9781003215998

Kurup, S. & Gupta, V. (2022). Factors Influencing the AI Adoption in Organizations, *Metamorphosis: A Journal of Management Research*, vol. 21, no. 2, pp.129–139

Lankton, N., McKnight, D. H. & Tripp, J. (2015). Technology, Humanness, and Trust: Rethinking Trust in Technology, Journal of the Association for Information Systems, vol. 16, no. 10, pp.880–918

Lee, J., Davari, H., Singh, J. & Pandhare, V. (2018). Industrial Artificial Intelligence for Industry 4.0-Based Manufacturing Systems, *Manufacturing Letters*, vol. 18, pp.20–23

Lee, P., Bubeck, S. & Petro, J. (2023). Benefits, Limits, and Risks of GPT-4 as an AI Chatbot for Medicine, *New England Journal of Medicine*, vol. 388, no. 13, pp.1233–1239

Lee, Y. & Lee, J. Y. (2018). A Multilevel Analysis of Individual and Organizational Factors That Influence the Relationship between Career Development and Job-Performance Improvement, *European Journal of Training and Development*, vol. 42, no. 5/6, pp.286–304

LePine, J. A., Erez, A. & Johnson, D. E. (2002). The Nature and Dimensionality of Organizational Citizenship Behavior: A Critical Review and Meta-Analysis., *Journal of Applied Psychology*, vol. 87, no. 1, pp.52–65

Lichtenthaler, U. (2019). Extremes of Acceptance: Employee Attitudes toward Artificial Intelligence, *Journal of Business Strategy,* vol. 41, no. 5, pp.39–45

Maedche, A., Legner, C., Benlian, A., Berger, B., Gimpel, H., Hess, T., Hinz, O., Morana, S. & Söllner, M. (2019). AI-Based Digital Assistants, *Business & Information Systems Engineering*, vol. 61, no. 4, pp.535–544

Makarius, E. E., Mukherjee, D., Fox, J. D. & Fox, A. K. (2020). Rising with the Machines: A Sociotechnical Framework for Bringing Artificial Intelligence into the Organization, *Journal of Business Research*, vol. 120, pp.262–273

Malik, E., Baig, S. A. & Manzoor, U. (2020). Effect of HR Practices on Employee Retention: The Role of Perceived Supervisor Support, vol. 3, no. 3, pp.1–7

Malik, N., Tripathi, S. N., Kar, A. K. & Gupta, S. (2021). Impact of Artificial Intelligence on Employees Working in Industry 4.0 Led Organizations, *International Journal of Manpower*, vol. 43, no. 2, pp.334–354

Mattas, P. S. (2023). ChatGPT: A Study of AI Language Processing and Its Implications, *International Journal of Research Publication and Reviews*, vol. 04, no. 02, pp.435–440

Mayer, A.-S., Strich, F. & Fiedler, M. (2020). Unintended Consequences of Introducing AI Systems for Decision Making, *MIS Quarterly Executive*, vol. 19, no. 4, pp.239–257

McCarthy, J., Minsky, M. L., Rochester, N. & Shannon, C. E. (1955). A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence

Meyer, J. P., Paunonen, S. V., Gellatly, I. R., Goffin, R. D. & Jackson, D. N. (1989). Organizational Commitment and Job Performance: It's the Nature of the Commitment That Counts., vol. 74, no. 1, pp.152–156

Moon, J. S. & Choi, S. B. (2016). The Impact of Career Management on Organizational Commitment and the Mediating Role of Subjective Career Success: The Case of Korean R&D Employees, *Journal of Career Development*, vol. 44, no. 3, pp.191–208

Morandín-Ahuerma, F. (2022). What Is Artificial Intelligence, *International Journal of Research Publication and Reviews*, vol. 3, no. 12, pp.1947–1951

Morris, M. G., Venkatesh, V. & Ackerman, P. L. (2005). Gender and Age Differences in Employee Decisions about New Technology: An Extension to the Theory of Planned Behavior, IEEE Transactions on Engineering Management, vol. 52, no. 1, pp.69–84

Motowildo, S. J., Borman, W. C. & Schmit, M. J. (1997). A Theory of Individual Differences in Task and Contextual Performance, *Human Performance*, vol. 10, no. 2, pp.71–83

Nascimento, A. M. & Bellini, C. G. P. (2018). Artificial Intelligence and Industry 4.0: The next Frontier in Organizations, *BAR - Brazilian Administration Review*, vol. 15, no. 4, p.e180152

Nicolescu, L. & Tudorache, M. (2022). Human-Computer Interaction in Customer Service: The Experience with AI Chatbots—A Systematic Literature Review, *Electronics*, vol. 11, p.1579

Opatha, H. H. D. N. P. (2015). Organizational Behaviour: The Human Side of Work, *Colombo: Department of HRM, University of Sri Jayewardenepura.*

Organ, D. W. (1988). Organizational Citizenship Behavior: The Good Soldier Syndrome., Lexington, MA, England: Lexington Books/D. C. Heath and Com, pp.xiii, 132

Pandey, J. (2019). Factors Affecting Job Performance: An Integrative Review of Literature, *Management Research Review*, vol. 42, no. 2, pp.263–289

Pandl, K. D., Teigeler, H., Lins, S., Thiebes, S. & Sunyaev, A. (2021). Drivers and Inhibitors for Organizations' Intention to Adopt Artificial Intelligence as a Service, *Hawaii International Conference on System Sciences*

Pantano, E. & Pizzi, G. (2020). Forecasting Artificial Intelligence on Online Customer Assistance: Evidence from Chatbot Patents Analysis, *Journal of Retailing and Consumer Services*, vol. 55, p.102096

Parker, S. K., Williams, H. M. & Turner, N. (2006). Modeling the Antecedents of Proactive Behavior at Work., *Journal of Applied Psychology*, vol. 91, pp.636–652

Prasad, P. (1993). SYMBOLIC PROCESSES IN THE IMPLEMENTATION OF TECHNOLOGICAL CHANGE: A SYMBOLIC INTERACTIONS STUDY OF WORK COMPUTERIZATION., *Academy of Management Journal*, vol. 36, no. 6, pp.1400–1429

Prasad, P. (2017). Crafting Qualitative Research: Beyond Positivist Traditions, Second edition., New York, NY: Routledge

Puri, R., Kung, D. S., Janssen, G., Zhang, W., Domeniconi, G., Zolotov, V., Dolby, J., Chen, J., Choudhury, M., Decker, L., Thost, V., Buratti, L., Pujar, S., Ramji, S., Finkler, U., Malaika, S. & Reiss, F. (2021). CodeNet: A Large-Scale AI for Code Dataset for Learning a Diversity of Coding Tasks, arXiv:2105.12655, Available Online: http://arxiv.org/abs/2105.12655 [Accessed 9 April 2023]

Qin, C., Zhang, A., Zhang, Z., Chen, J., Yasunaga, M. & Yang, D. (2023). Is ChatGPT a General-Purpose Natural Language Processing Task Solver?, *ArXiv*, vol. abs/2302.06476

Rai, R. & Tripathi, S. (2015). A Study on QWL and Its Effects on Job Performance, *Journal of Management SciecesandTechnology*, vol. 2, no. 2, pp.33–42

Ramawickrama, J., Opatha, H. H. D. N. P. & Pushpakumari, M. D. (2017). A Synthesis towards the Construct of Job Performance, *International Business Research*, vol. 10, no. 10, p.66

Reim, W., Åström, J. & Eriksson, O. (2020). Implementation of Artificial Intelligence (AI): A Roadmap for Business Model Innovation, *AI*, vol. 1, no. 2, pp.180–191

Rennstam, J. & Wasterfors, D. (2018). ANALYZE!: Crafting Your Data in Qualitative Research, Place of publication not identified: STUDENTLITTERATUR AB

Romeike, B. (2023). ChatGPT Is Fun, but Not an Author, Science, vol. 379, no. 6630, pp.313–313

Sallam, M., Salim, N., Barakat, M. & Al-Tammemi, A. (2023). ChatGPT Applications in Medical, Dental, Pharmacy, and Public Health Education: A Descriptive Study Highlighting the Advantages and Limitations, Narra J, vol. 3, no. 1, pp.e103–e103

Sartori, L. & Theodorou, A. (2022). A Sociotechnical Perspective for the Future of AI: Narratives, Inequalities, and Human Control, *Ethics and Information Technology*, vol. 24, no. 1, p.4

Schaefer, S. M. & Alvesson, M. (2020). Epistemic Attitudes and Source Critique in Qualitative Research, *Journal of Management Inquiry*, vol. 29, no. 1, pp.33–45

Schindler, P. S. & Cooper, D. R. (2019). Business Research Methods, Thirteen edition., New York, NY: McGraw-Hill Education

Sharma, M. & Biros, D. (2021). AI and Its Implications for Organisations, in Z. W. Y. Lee, T. K. H. Chan, & C. M. K. Cheung (eds), Information Technology in Organisations and Societies: Multidisciplinary Perspectives from AI to Technostress, [e-book] Emerald Publishing Limited, pp.1–24, Available Online: https://doi.org/10.1108/978-1-83909-812-320211001 [Accessed 9 April 2023]

Sikdar, S. (2018). Artificial Intelligence, Its Impact on Innovation, and the Google Effect, *Clean Technologies and Environmental Policy*, vol. 20, no. 1, pp.1–2

Sonnentag, S. & Frese, M. (2002). Performance Concepts and Performance Theory, in S. Sonnentag (ed.), *Psychological Management of Individual Performance*, [e-book] Chichester, UK: John Wiley & Sons, Ltd, pp.3–25, Available Online: https://onlinelibrary.wiley.com/doi/10.1002/0470013419.ch1 [Accessed 28 March 2023]

Sonnentag, S., Volmer, J. & Spychala, A. (2008). Job Performance, 1st edn, Los Angeles: Thousand Oaks: Sage, pp.428–449

Stewart, G. L. & Brown, K. G. (2009). Human Resource Management: Linking Strategy to Practice, Hoboken, NJ: John Wiley & Sons

Sturges, J., Conway, N., Guest, D. & Liefooghe, A. (2005). Managing the Career Deal: The Psychological Contract as a Framework for Understanding Career Management, Organizational Commitment and Work Behavior, *Journal of Organizational Behavior*, vol. 26, no. 7, pp.821–838

Syam, N. & Sharma, A. (2018). Waiting for a Sales Renaissance in the Fourth Industrial Revolution: Machine Learning and Artificial Intelligence in Sales Research and Practice, *Industrial Marketing Management*, vol. 69, pp.135–146

Tecuci, G. (2012). Artificial Intelligence, *WIREs Computational Statistics*, vol. 4, no. 2, pp.168–180

Thorp, H. H. (2023). ChatGPT Is Fun, but Not an Author, *Science*, vol. 379, no. 6630, pp.313–313

Tschang, F. T. & Almirall, E. (2021). Artificial Intelligence as Augmenting Automation: Implications for Employment, *Academy of Management Perspectives*, vol. 35, no. 4, pp.642–659

Verma, S., Sharma, R., Deb, S. & Maitra, D. (2021). Artificial Intelligence in Marketing: Systematic Review and Future Research Direction, *International Journal of Information Management Data Insights*, vol. 1, no. 1, p.100002

Viswesvaran, C. & Ones, D. S. (2000). Perspectives on Models of Job Performance, *International Journal of Selection and Assessment*, vol. 8, no. 4, pp.216–226

Wamba-Taguimdje, S.-L., Fosso Wamba, S., Kala Kamdjoug, J. R. & Tchatchouang Wanko, C. E. (2020). Influence of Artificial Intelligence (AI) on Firm Performance: The Business Value of AI-Based Transformation Projects, *Business Process Management Journal*, vol. 26, no. 7, pp.1893–1924

Weng, Q., McElroy, J. C., Morrow, P. C. & Liu, R. (2010). The Relationship between Career Growth and Organizational Commitment, *Journal of Vocational Behavior*, vol. 77, no. 3, pp.391–400

Wilson, J. R., Lee, N. Y., Saechao, A., Hershenson, S., Scheutz, M. & Tickle-Degnen, L. (2017). Hand Gestures and Verbal Acknowledgments Improve Human-Robot Rapport, in A. Kheddar, E. Yoshida, S. S. Ge, K. Suzuki, J.-J. Cabibihan, F. Eyssel, & H. He (eds), *Social Robotics*, Cham, 2017, Cham: Springer International Publishing, pp.334–344

Yin, R. K. (2011). Qualitative Research from Start to Finish, New York: Guilford Press

Younis, R. A. A. & Adel, H. M. (2020). Artificial Intelligence Strategy, Creativity-Oriented HRM and Knowledge-Sharing Quality: Empirical Analysis of Individual and Organisational Performance of AI-Powered Businesses, *SSRN Electronic Journal*, [e-journal], Available Online: https://www.ssrn.com/abstract=4127128 [Accessed 9 April 2023]

Yu, X., Xu, S. & Ashton, M. (2023). Antecedents and Outcomes of Artificial Intelligence Adoption and Application in the Workplace: The Socio-Technical System Theory Perspective, *Information Technology & People*, vol. 36, no. 1, pp.454–474