## VILNIUS UNIVERSITY KAUNAS FACULTY

### INSTITUTE OF SOCIAL SCIENCES AND APPLIED INFORMATICS

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KONRADAS MILKUS

MASTER'S THESIS

### THE INFLUENCE OF PERCEPTION AN EMPLOYEE HAS ON ARTIFICIAL INTELLIGENCE TO ITS ADOPTION IN THE WORKPLACE

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## LIST OF ABBREVIATIONS

AI - Artificial Intelligence

- PU Perceived Usefulness
- BI Behavioural Intention to Use
- PEOU Perceived Ease of Usefulness
- TAM Technology Adoption Framework
- SDT Self-Determination Theory

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#### **INTRODUCTION**

Relevance of the topic. As with most technologies, there is a crucial relationship between what the role a perception towards the technology plays to its adoption or behavioural intention to use. The current rise of products based on artificial intelligence has created a turbulence in society and has already penetrated into our daily lives. Our workplace is not an exception. Similar to computers, products based on artificial intelligence are here to stay as the benefits of using it on a daily basis are more than clear. However, the behavioural intention to use it in the workplace significantly depends on the perception an employee has. In general, organisations tend to significantly benefit from new technology adoption by their employees as it directly impacts employee engagement, productivity and can lead to fostering a culture of innovation. Nevertheless, to be willing to make the most out of it, an employee has to possess a positive attitude. There could be certain factors behind such positivity, such as having a clear understanding of benefits that a technology offers, having faith that you can and being able to actually apply it. On the other hand, having a negative perception may act as a deterrent towards action. The reasons for a negative perception to emerge can be various, ranging from anxiety towards artificial intelligence in general, having a feeling that you may be replaced, not having necessary skills or education. Despite the fact that the role of perception has been studied by various researchers in terms of other technologies and in different contexts, it is still the case that there is quite a limited amount of research investigating the link between the perception and artificial intelligence adoption in the workplace. As we are experiencing these fundamental shifts, this gap in research places this paper right in the sweet spot for exploration and investigation of this crucial intersection.

**Investigation level of the problem.** Significant amount of research is happening these days exploring the general attitudes towards artificial intelligence. To explain human decision-making better as well as behaviour, various factors are being studied, for instance demographics, personality types, aspects of trust and anxieties (Bergdahl, 2023). As far as the research of artificial intelligence is concerned, there is no unified path of exploration. Generally speaking, researchers attempt to study it from various perspectives such as individual (Cao et al., 2021), societal (Challen et al., 2019) or existential (Müller and Bostrom, 2016). However, it has been argued that the attitudes an individual has towards artificial intelligence is different compared to the acceptance of traditional technology (Schepman and Rodway, 2020). As a result, any technology that reaches daylight and is based on artificial intelligence may become the focus for a researcher as the perception towards it may be completely different to another technology. Additionally, the pace of development of artificial intelligence is very fast which leads to the importance of ensuring that the research on the constructs

of perception is up to date. Lack of recent information may significantly impact and limit its adoption in the workplace.

**Scientific problem** – how does the perception an employee has on artificial intelligence technology influence its adoption in the workplace?

**Object of the thesis** – the influence of perception an employee has on artificial intelligence technology to its adoption in the workplace.

**Aim of the thesis** – is to investigate the influence of perception an employee has on artificial intelligence technology to its adoption in the workplace.

#### **Objectives of the thesis**:

- 1. To present a concept of perception.
- 2. To examine the links between perception and intention to use technology.
- 3. To analyse the empirical level of researches regarding perception and intention to use technology.
- 4. To formulate the research model of influence of perception and intention to use technology based on the analysis of theoretical and empirical researches.
- 5. To perform empirical evaluation of research model on influence of perception and intention to use technology and present results.

**Thesis and research methods.** Classical and general scientific research methods, such as the analysis of scientific literature, synthesis and classification has been applied on the theoretical and analytical premises of concept of perception and intention to use technology. The empirical part of this paper uses a qualitative method through semi-structured interviews. The obtained data was analysed by applying a content analysis method of data processing together with the deductive coding approach.

Structure of the thesis. The first chapter "THEORETICAL ASPECTS OF INFLUENCE OF PERCEPTION AND INTENTION TO USE TECHNOLOGY" explains eight constructs of perception. Additionally, the definition of artificial intelligence is provided, including its types, current stage of development. Finally, the theoretical model is presented. The second chapter "EMPIRICAL RESEARCH LEVEL OF INFLUENCE OF PERCEPTION AND INTENTION TO USE TECHNOLOGY" provides a review on existing research on perception and intention to use technology, including artificial intelligence in the workplace. Moreover, the analysis and comparison of influence of constructs of perception and intention to use technology is presented and compared. Finally, the research model is illustrated, and eight hypotheses are developed. The third chapter "EMPIRICAL RESEARCH OF INFLUENCE OF PERCEPTION AND INTENTION TO USE TECHNOLOGY" presents the selected research methodology, reveals the results of research and presents the recommended model for quantitative testing. **Literature used in thesis.** In this paper, foreign authors in both theoretical and analytical parts were used. Main authors such as Bergdahl (2023), Ryan and Deci (2017), Wang et al. (2023), Gupta et al. (2022), Kaya et al. (2022), Lew et al. (2020) and others whose findings and contributions were deemed to be relevant to this paper.

### Theoretical significance of the thesis:

- One of the most significant contributions of this paper is the application of basic psychological needs. As this particular theory was getting too little attention among the researchers, this paper bridges the gap and underscores the potential of this theory in explaining the intention of employees to use ChatGPT in the workplace.
- From a theoretical and practical perspective, organisational support has been proved to be an important factor contributing to adoption of various technologies in the workplace. However, according to the findings of this paper, it seems that organisations are lagging behind the decision to support their employees in any format, whether by provision of guidelines or the training itself. This could potentially be an interesting topic for some researchers focusing on understanding the significance of organisational support.
- Prompt literacy emerged as a significant subcategory under competence construct. As this is most likely the most critical aspect of being able to use ChatGPT efficiently, researchers may be interested in researching the most effective prompt writers and their strategies. As more and more organisations decide to exhibit a supportive approach with regards to ChatGPT, this leads to effort losses for employees that are completely new.

### Practical significance of the thesis:

- Organisations willing to understand how perception an employee has on artificial intelligence leads to intention to use ChatGPT in the workplace can benefit from analysing this paper. If an organisation is aiming towards higher adoption of ChatGPT among employees, this research highlights essential elements leading towards this behavioural intention. These elements were competence, autonomy, relatedness, perceived ease of use and perceived usefulness.
- In some cases, employees proactively adopted ChatGPT. As a result, it has certain risks for organisations if the official position is not formed and presented to their employees. This results in a grey zone where neither employee feels supportive and empowered nor the organisation is safe with respect to the sensitive data treatment.
- Entrepreneurs that are developing products based on artificial intelligence may get a better understanding on what basis their potential customers will be evaluating their products and ensure that these requirements are being met before the actual launch.

**Structure and scope of the thesis.** The master's thesis consists of an introduction, 3 parts, and conclusions. The study is presented in 46 pages, including 16 tables and 3 figures. In addition to that, the thesis contains 6 appendices. The list of references consists of 71 references.

### 1. THEORETICAL ASPECTS OF INFLUENCE OF PERCEPTION AND INTENTION TO USE TECHNOLOGY

This chapter provides an overview of the concept of perception; discusses the main constructs of perception: self-efficacy, anxiety, competence, autonomy, relatedness, perceived ease of use, perceived usefulness, and organisational support; presents the definition of artificial intelligence (AI) and its types, and the link between perception and technology adoption, including artificial intelligence, based on the existing literature.

#### **1.1.** The concept of perception

With the rising introduction of artificial intelligence, organisations seeking to use AI in their operations, and those making AI-based products, are highly interested in knowing the underlying factors that drive employee intentions toward such technologies. Research in this area enables organisations to gain deeper insights into perceptions and modify these perceptions accordingly through the exploration of various constructs. Therefore, the knowledge of those perceptions is critical, as it directly impacts employee willingness to adopt and actually use AI effectively, which determines whether AI implementation and innovation in the workplace will be successful. There is no single definition that ultimately defines the concept of perception, and it may significantly differ based on the academic discipline. The author, however, attempts to define perception from the perspective of existing literature specifically focused on technology adoption. In other words, while reviewing literature review, certain theoretical frameworks emerge, such as Theory of Planned Behavior (TPB), Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), Self-Determination Theory (SDT) and others. While some of them overlap, others provide a more distinct possibility to understand an employee's perception. However, all of them aim towards explaining the link between the perception and behavioural intention. Furthermore, the author conceptualises the concept of perception based on two classical frameworks intentionally designed for better understanding of underlying factors on behavioural intention to use technology, TAM and SDT, and their essential constructs, perceived ease of use, perceived usefulness and competence, autonomy, relatedness. Other theoretical constructs, such as self-efficacy, anxiety and organisational support were found to be highly relevant. This section discusses the main aspects of each of these perception constructs.

**Self-efficacy.** The term or a concept of self-efficacy was first introduced as a part of social cognitive theory and essentially was defined as a person's confidence towards his or her ability to perform a certain task or take certain action (Bandura, 1999). On the other hand, whenever a new challenge or situation emerges, self-efficacy refers to the overall confidence of an individual to

manage and cope with the emerged situation (Schwarzer, 1994). Since then, the concept has been applied in various contexts by researchers across various domains to explain potential impact of such ability on attitude and willingness to perform an action in a given situation. However, depending on the research domain, the term self-efficacy may have domain-constrained features, such as teachers' self-efficacy. For instance, teachers' self-efficacy was defined as teacher's beliefs in their capability towards performing certain tasks (Dellinger et al., 2008). According to Compeau and Higgins (1995), self-efficacy is important as it defines our perception towards the possibility to use technology in the workplace. As a result, individuals with higher levels of self-efficacy are more inclined to use technology in the workplace. As far as care robotics and employee self-efficacy is concerned, it has been found that robot use self-efficacy is associated with the acceptance of using robots in the workplace, alongside other factors such as age, education (Latikka et al., 2019). Interestingly, selfefficacy has been associated with individual innovativeness which could be also regarded as a type of proactive behaviour from which the organisation benefits. According to the research findings by Kao et. al (2019), there has been discovered a link between Taiwan's first-line border police officers self-efficacy levels and their inclination towards innovative behaviour in the workplace. Another implication for organisation was found between employee's self-efficacy and willingness to proactively partake in voluntary learning activities. In conclusion, employee self-efficacy may be used to explain an employee's willingness to use artificial intelligence in the workplace.

Anxiety. Anxiety or anxiety related to technology use is defined as fear experienced by individuals when they plan to interact, or actually interact, with computers (Rohner, and Simonson, 1981). According to Venkatesh (2000), the use of technology has been proved to trigger various anxieties. In some cases, the technology only brings negatively associated feelings, such as frustration, disturbance or even fear, while in other cases an employee may feel splendid. The concern of anxiety with regards to computer technology use has been researched quite significantly as it may hinder smoother adoption (Roberts, and Henderson, 2000). Most concerns with the advent of AI technology include unemployment, privacy and accountability issues, biases in the algorithms, growing socioeconomic disparities, and unethical behaviours (Green, 2020). With the current growth of AI adoption across various industries and sectors, it seems that the scholars are catching up with a definition of anxiety related to AI. For instance, Johnson and Verdicchio (2017) provided a definition of AI anxiety as an individual's apprehension and fear regarding the possibility that AI technology might exceed their control. On the other hand, Wang and Wang (2022) provided a more comprehensive classification of AI anxiety and it can be classified into several dimensions: "job replacement anxiety," reflecting concerns about AI's impact on employment; "sociotechnical blindness," indicating apprehension stemming from incomplete comprehension of AI's reliance on human involvement; "AI configuration anxiety," which encompasses fears related to humanoid AI; and "AI

learning anxiety," referring to concerns about acquiring knowledge of AI technologies. Li and Huang (2020) have provided a different view on anxiety towards AI which consists of privacy-related issues, transparency bias and overall ethics. Another highly important aspect for this research is the fact that the notion of AI anxiety is a recent development and is mostly related with the recent technological advancements, and a notable void yet exists in scholarly discussions regarding the correlation between an individual's AI anxiety and their perceptions of AI, as well as how this intersects with broader personality characteristics (Kaya et al., 2022). Therefore, the aforementioned finding slightly hinders the possibility for the author of the thesis to significantly expand on this rather new issue in the academic world, however, it does not reduce its potential significance for the entire thesis.

Competence, autonomy and relatedness. SDT is a very popular and well-validated theory describing human basic psychological needs to feel autonomous, competent, and related (Ryan, and Deci, 2017). Autonomy is defined as the experience of having one's own will and choices about one's actions, and through this very reason, it leads to internal motivation to take a certain course of action. Competence, on the other hand, is an individual's perceived capability to perform tasks effectively and to achieve particular desired results. Relatedness refers to an individual's experience of caring and connecting with other people, having a feeling of belonging. Basic psychological needs are one of the mini-theories of STD and help to contribute to the division of intrinsic and extrinsic motivation (Ryan, and Deci, 2017). The fulfilment of autonomy, competence and relatedness have been proved to lead towards embracing new technologies among students and teachers (Nikou, and Economides, 2017). Importantly, the use of technology, such as artificial intelligence, may help to meet needs of autonomy, relatedness and competence or result in the opposite effect. For instance, social media can deliver the feeling of belonging as it allows for people to connect in the digital space, however, individuals may compare oneself to another which may have detrimental effects (Peters et al., 2018). This suggests that the possibility to meet basic psychological needs could be based on the specific technology and if the usa of one technology resulted in aforementioned needs being met, the use of another may have entirely different effects. According to Mendoza et al. (2023), students who feel less competent in making the best use of online learning technology may have difficulties in achieving a desired level of academic results. The rise of technology and AI has increased remote workers' independence and resulted in higher levels of autonomy, for example, through remote work that has been significantly impacted and enabled by communication and collaboration technologies (Ferrara et al., 2022).

**Perceived Ease of Use and Perceived Usefulness.** Perceived ease of use, often associated with the Technology Acceptance Model (TAM), refers to the degree to which individuals perceive a particular technology or system as effortless to use or operate (Davis, 1989). Perceived usefulness, commonly linked with the Technology Acceptance Model (TAM), describes the extent to which

individuals believe that using a specific technology or system will enhance their performance and productivity (Davis, 1989). It has been argued that perceived usefulness is often the strongest positive predictor of an individual's behavioural intention to use new technology (Rafique et al., 2020). Respectively, perceived ease of use is generally assumed to have a less significant role on technology acceptance compared to perceived usefulness since it only deals with the technicality of the use of the device. The aforementioned factor has declined in its significance over time as users continuously become accustomed to technology in their daily lives (Lunney et al., 2016). However, it does not diminish its significant and potential impact on explaining the behavioural intention. On a general note, the aforementioned factors are the most relevant predictors of behavioural intention and have been tested in various regions across the globe and across different technological domains, therefore, proving its reliability (Park et al., 2014). Depending on the context and research objectives, it has been proved that perceived ease of use and perceived usefulness are factors that may have different antecedents which ultimately provides flexibility for researchers (Al-Rahmi et al., 2019).

Organisational support. Organisational support and its impact towards technology acceptance by employees have been extensively researched. Organisational support theory states that while providing support to employees, they may feel as if they entered into a social exchange contract which may lead towards a feeling of obligation to repay the supportive organisation in the form of extra efforts, such as innovative behaviour (Eisenberger et al., 1986). Moreover, organisational support could be viewed from the perspective of top management. It is argued to be significant to invest additional efforts and resources in the creation of a supportive atmosphere for new technology adoption (Thong et. al, 1996). Another role that usually top management has is effective communication. With the help of dedicated communication from top management, the adoption of new technology may undergo smoothly (Baker, 2012). Another less visible aspect to an employee of the management role is the allocation of resources. However, a lack of resources or insufficient funds tends to happen quite often, especially during the introduction of new technology in the workplace (Zhu et al., 2010). To avoid such issues, top management should take proactive measures to ensure that there will be enough resources available prior to the introduction of technology. Research conducted by Taylor and Todd (1995), has demonstrated the significant impact of organisational support on perceived ease of use and perceived usefulness of technology adoption among employees.

Having discussed the main constructs of perception with regards to technology adoption in general, including artificial intelligence, a summary on author's ideas on the aforementioned constructs of perception are provided in Table 1.

## Authors' ideas on constructs of perception

Constructs of perception	Authors' ideas				
	Schwarzer (1994)	Compeau, and Higgins (1995)	Bandura (1999)	Latikka et al., (2019)	Kao et. al (2019)
Self-efficacy	Refers to the overall confidence of an individual to manage and cope with the emerging situation, whenever such situation emerges.	Defines our perception towards the possibility of using technology in the workplace and higher levels of self-efficacy lead to higher willingness to use technology in the workplace.	Refers to a person's confidence towards his or her ability to perform a certain task or take certain action.	Associated with individual innovativeness which could be also regarded as a type of proactive behaviour from which the organisation benefits.	Higher levels of self-efficacy were related towards employees' willingness to proactively partake in voluntary learning activities.
	Rohner, and Simonson (1981)	Venkatesh (2000)	Johnson, and Verdicchio (2017)	Li and Huang (2020)	Wang, and Wang (2022)
Anxiety	Defined as fear experienced by individuals when they plan to interact, or actually interact, with computers.	Use of technology has been proved to trigger various feelings, for some anxieties, such as fear, others may feel splendid.	AI anxiety as an individual's apprehension and fear regarding the possibility that AI technology might exceed their control.	Anxiety towards AI consists of privacy-related issues, transparency bias and overall ethics.	Anxiety towards AI can be classified into several dimensions: job replacement anxiety, sociotechnical blindness, AI configuration anxiety and AI learning anxiety.
	Ryan, and Deci (2017)	Nikou, and Economides (2017)	Peters et al. (2018)	Ferrara et al. (2022)	Mendoza et al. (2023)
Competence	Individual's perceived capability to perform tasks effectively and to achieve particular desired results.	The fulfilment of autonomy, competence and relatedness needs have been proved to lead towards embracing new technologies among students and teachers.	The use of technology may help to meet needs of autonomy, relatedness and competence or result in the opposite effect. Social media can deliver the fealing of	-	Students who feel less competent in making the best use of online learning technology may have difficulties in achieving a desired level of academic results.
Autonomy	Defined as the experience of having one's own will and choices about one's		feeling of belonging as it allows for people to connect in the digital space,Communication and collaboration technologies in the era of remote work have led to		-

	actions, and through this very reason, it leads to internal motivation to take a certain course of action.		unless the person starts comparing oneself to others which could result in detrimental effects.	the increased levels of autonomy and allows for employees to have more choices on time allocation.	
Relatedness	Individual's experience of caring and connecting with other people, having a feeling of belonging.			-	-
	Davis (1989)	Park et al. (2014)	Lunney et al. (2016)	Al-Rahmi et al. (2019)	<b>Rafique et al.</b> (2020)
Perceived Usefulness Perceived Ease of Use	Refers to the extent to which individuals believe that using a specific technology or system will enhance their performance and productivity. Refers to the degree to which individuals perceive a particular technology or system as	Both are the most relevant predictors of behavioural intention and have been tested in various regions across the globe and across different technological domains.	- Has declined in its significance over time as users continuously become accustomed to	Perceived ease of use and perceived usefulness are factors that may have different antecedents which ultimately provides flexibility for researchers across different contexts and different research objectives.	Has been argued that perceived usefulness is often the strongest positive predictor of an individual's behavioural intention to use new technology.
	effortless to use or operate.		technology in their daily lives.		
	Eisenberger et al. (1986)	Taylor, and Todd (1995)	Thong et. al (1996)	Zhu et al. (2010)	Baker (2012)
Organisational support	Organisational support leads towards a social exchange contract between organisation and employee, which ultimately may result in additional efforts taken by an employee, for instance innovative behaviour.	Revealed to have significant impact on perceived ease of use and perceived usefulness of technology adoption among employees.	Refers to investing additional efforts and resources in the creation of a supportive atmosphere for new technology adoption among employees.	Almost invisible, however, it is highly important that top management takes proactive measures to ensure that there will be enough resources available prior to the introduction of technology to support employees.	Effective communication is essential while undergoing technology introduction in the workplace.

Based on the aforementioned discussions, it can be stated that self-efficacy, anxiety, competence, autonomy and relatedness are related to the individual, perceived ease of use and perceived usefulness to technology whereas organisational support to the organisation. Having this in mind, this paper classifies the main constructs of perception into three groups in the following way: (1) individual; (2) technology; (3) organisation. Following the discussion regarding the constructs of perception, the next section presents the theoretical aspects of artificial intelligence, the definition and its types.

#### **1.2.** Artificial intelligence

Recent technological developments concerning the development of artificial intelligence (AI) has accelerated the research in the academic world and it is becoming less of a question whether an individual's life or work will be affected and more of a question to what extent. The definition of AI is ever evolving, however, it was first defined as "the science and engineering of making intelligent machines" by McCarthy (1958), but, as the time passed, other definitions emerged. In general, there are three types of AI: Artificial Narrow Intelligence (ANI), Artificial General Intelligence (AGI), Artificial Superintelligence (ASI). According to the definition of ANI, this sort of intelligence equals or even surpasses the abilities of a human mind to perform certain tasks (De Spiegeleire et al., 2017). AGI would essentially be defined similarly to ANI, however, the tasks that AI could perform would be unlimited. As far as ASI is concerned, this type of AI would simply surpass the human mind in any imaginative way possible. The current applications of AI in work-related setting are vast, including advertising (Campbell et al., 2022), customer support (Chandra et al., 2022), software engineering (Greengard, 2023), finance (Agrawal et al., 2023), and healthcare (Djihane et al., 2022) to name a few. As far as work-setting is concerned, one of the issues that is gaining momentum nowadays is the potential displacement of jobs due to the adoption of AI. As argued by Codrington (2018), tasks and not the entire jobs will be replaced by the machines. On the other hand, roughly a hundred years ago approximately half of the population was still involved in agriculture, while currently this figure stands at approximately two percent (Codrington, 2018). However, it is also the case that as technology disrupts some jobs, it also initiates the emergence of new jobs. The purpose of this research is not to speculate on potential future scenarios and what role AI may have in there but to focus on the combination between an individual as an employee in a work-setting and AI as a tool.

With the growth of AI adoption in a workplace, numerous benefits are slowly turning into shape. Employees in the creative industry, such as advertising, start embracing AI for production and editing of audio and visual content. It has proven to be a highly task automating power and reduction of work hours spent, giving a momentum and a competitive edge for businesses in the sector (Campbell et al., 2022). As most companies tend to have a human resource (HR) department, it is not always the case that each employee is listened to, and it seems that it is slowly changing as well. According to the research conducted by Mirza (2021), more companies are embracing AI software designed to unload specific tasks of HR managers to ensure the wellness of all employees, such as mental wellness through AI-powered conversational workplace application. Moreover, some HR managers are employing AI tools for recruitment purposes as it allows to screen more potential employees than ever before (Roy, 2017). AI used to track employee work and provide feedback was on a spotlight and debates are still undergoing, however, it was found that employee performance, especially those who are with a company longer, has increased (Tong et al., 2021). Research conducted in a banking sector suggests that there is a direct positive link between the use of AI in a work setting and overall job performance (Chondough et al., 2022). With AI becoming a complementary work tool, it has been discovered that "a new decision-making resource emerges at the human-AI intersection" (Krakowski et al., 2023). As the competitive landscape changes due to the adoption of AI, businesses and managers will have to develop new capabilities to remain relevant. Moreover, the choice to upgrade skills and adopt the AI in day-to-day tasks will not only allow to maintain the competitiveness in the long run but also was proved to minimize the displacement risk (Chen et al., 2022). Evidence appears that AI in a work-setting creates an opportunity for a business to reduce the costs by improving employee productivity and overall efficiency of operations (Hang, and Chen, 2022).

The author of the thesis will narrow down to one widely accepted AI product for the purpose of this research known as ChatGPT. Developed by Open AI and specifically designed to have conversational interactions with users, this technology leverages its vast knowledge base to generate human-like responses and provide useful information based on a user written prompt on a wide range of topics (OpenAI, n.d.). Prompt engineering is the new skill related to the crafting and formulation of the prompts that users put into artificial intelligence tools to return specific output. In other words, the process of devising input statements (termed prompts) for generative AI models is commonly known as prompt engineering (Oppenlaender et al., 2023). As highlighted by White et al. (2023), a well-crafted prompt essentially provides the framework for the dialogue and communicates to the LLM which information is significant, as well as the desired format and content of the output. As it requires skill that usually accumulates over time, it may cause certain perceptual issues for an employee.

Summarising the above analysis of theoretical research on artificial intelligence, it can be stated that artificial intelligence is still in early stages of development. However, up until recently, most artificial intelligence products were not widely available for the general public. With the rise of ChatGPT and other similar products, users of such technologies already can feel the impact on their professional lives. Having discussed the theoretical aspects, definitions and benefits of artificial intelligence, the next section discusses how the constructs of perception described in the first section on technology and artificial intelligence are related to its adoption in the workplace.

#### 1.3. Links between perception and intention to use technology

Self-efficacy. On top of perceived usefulness and ease of use, self-efficacy appears to be an important variable in adopting mobile wallet technology in the hospitality industry. The confidence of users in effectively using this technology becomes important in shaping behavioural intention to adopt it since mobile wallets are constantly disrupting traditional modes of payment. Users with a high level of self-efficacy tend to perceive mobile wallet services as more useful and easier to use, hence enhancing their intentions to use them (Lew et al., 2020). Similar research has been on the investigation of factors influencing university students' intention to adopt mobile wallet technology. Self-efficacy, alongside other factors, had a profound impact on acceptance and use of mobile wallet technology among students (Mater et al., 2021). Similar conclusions have been reached in a study regarding influencing factors driving users' intention to adopt mobile health services. From the findings of the research, self-efficacy proves to play a major role in influencing users' intentions to adopt mobile health services. Users with high levels of self-efficacy have a view of mobile health services as being more useful and easier to use, hence resulting in the increased intention to use them. This has been found to be related to the fact that self-efficacy can be important in shaping users' perceptions and intentions about technology adoption. Such findings do have important implications for providers of such services, in other words, actions have to be taken to increase their quality in order to achieve higher levels of acceptance through higher levels of self-efficacy (Liu et al., 2022). Considering the fact that with such technology it is easier to receive medical treatment for a patient, it is highly important for providers of such technology to make it accessible, reliable and user-friendly for the general public.

**Anxiety.** Anxiety related towards the adoption of AI is a relatively new research field and has been categorised, as presented previously, therefore, more research is expected to fill in the existing literature gap (Kaya et al., 2022). However, some attempts have already been made and links between AI-related anxiety and technology adoption have been identified. Research conducted by Kaya et al. (2022) discovered that the factors which were positively and at the same time negatively linked to AI adoption was AI learning anxiety. Essentially it means that people who are aware that they do not possess the personal resources needed to learn and develop competencies in AI may avoid AI-powered technologies to their own detriment. Therefore, it is through the promotion of AI education that more positive perceptions of AI can be achieved. This may also have implications for the organisational support discussed previously. Another study investigating HR managers' attitudes

regarding AI adoption suggest that positive beliefs about AI enhance change readiness, while AI anxiety impedes it (Suseno et al., 2022). Additionally, a research completed in the finance sector among investors and their willingness to adopt robo-advisors in investment decision making has discovered a link between the level of anxiety and the willingness to adopt such technology in their daily work lives (Hohenberger et al., 2019).

Competence, autonomy and relatedness. As previously stated, competence, autonomy and relatedness are important factors in explaining an individual's motivation. To date, only limited research exists on the link between AI and basic psychological needs (Bergdahl, 2023). However, certain attempts to establish links between competence, autonomy and relatedness and AI adoption have already been made. For instance, self-determination theory that consists of the aforementioned components has been found to be very important for explaining the acceptance of AI technologies is becoming increasingly of interest to consider, given the rapid development and adoption pace of AI solutions (Bergdahl, 2023). Based on the robust analyses, the first study has found that fulfilment of basic psychological needs was related to more positive and less negative AI attitudes across certain European countries. Within the same research, another study based on hybrid multilevel regression models, showed that autonomy and relatedness were both positively related to more positive and less negative AI attitudes over time. Another take to apply basic psychological needs was related with chatbot usage. It has been discovered that users who are more autonomous, competent, and feel related experience greater satisfaction and chatbot usage (De Vreede et al., 2021). Similarly, when trying to bridge a gap in the literature, a link has been established between autonomy, competence, and other attitudes towards AI assistants, particularly in the space of personal banking (Moradbakhti et al. 2022). However, competence, autonomy and relatedness have already been tested as a valuable predictor towards other technologies, for instance e-learning as far it concerns teachers (Kristiansen et al., 2009) or students themselves (Chen, and Jang, 2010) to name a few. Therefore, this research attempts to make a contribution in this currently existing academic research gap.

**Perceived ease of use and perceived usefulness.** Perceived ease of use and perceived usefulness are often associated as important constructs of a widely applied theoretical framework known as Technology Acceptance Model. AI technology specifically made for the application of e-commerce is highly relevant for businesses that seek to maintain competitive edge by being able to offer tailor-made offerings for shoppers. However, for businesses to actually deploy such technology, it has to meet certain criteria. For instance, it has been found that the user-friendliness of AI platforms is critical for the establishment of trust in enhancing consumer acceptance and usage (Wang et al. 2023). If trust is established by an AI platform, it then results in perceived ease of use, which ultimately, has a positive influence on perceived usefulness. Another research specifically designed for investigation of users' behavioural intention to use voice recognition technologies (VRTs) in the

workplace came across similar conclusions as it has discovered a strong link between perceived usefulness, perceived ease of use and employee behavioural intention to adopt VRTs in Saudi Arabian workplaces (Majrashi, 2022). The author states that in order to increase the acceptance of such technology in the workplace, organisations have to dedicate resources for raising the overall awareness of potential benefits with regards to such technology. As a result, these constructs are critical in understanding and shaping employees' acceptance and willingness to use.

**Organisational support.** Organisational support or, as in some other cases mentioned, leadership support has been found to have an impact towards a technology adoption by employees. For instance, the higher adoption of innovative technology such as cloud computing or electronic business has been linked with leadership support (Yang et al., 2015). A similar conclusion and the link between the organisational support and technology adoption was established in the research focused on adoption of cloud computing by governmental institutions (Mudawi et al., 2021). Therefore, organisational support factors transcends the corporate environment and has been found relevant in public institutions as well. On a general note, organisational support sets a certain example for employees to follow, on the other hand, employees feel more certain that they will receive required assistance during the adoption. Based on the findings of the research, investments into stronger management commitment and the general organisational readiness may significantly impact the AI adoption in the workplace, especially among small and medium-sized businesses (Lada et al., 2023). This highlights the importance of the role organisational support has. Another study in the insurance sector investigated factors affecting the intention of employees to adopt AI-enabled applications. The results show that the technological and environmental variables significantly predict behavioural intention, but among the organisational factors, only top management support and financial readiness have a robust association with AI adoption (Gupta et al., 2022). Fundamentally, employees are the ones that have to work with AI technologies. Integrating human workers and AI-enabled robots raises new challenges for HRM, involving the issues of workers' apprehension from AI and building trust between human workers and AI-driven counterparts. Therefore, any organisational support mechanisms, like a supportive environment, training opportunities, and the development of technological competence among employees before AI solutions are integrated within teams, would be key toward overcoming such challenges (Arslan et al., 2021).

Based on the analysis of the theoretical research, the theoretical model is introduced below in Figure 1.



Source: created by the author.

#### Figure 1 Theoretical model of influence of perception on intention to use technology

Theoretical model above presents three groups that comprise constructs of perception which influence the behavioural intention to use artificial intelligence, namely divided into individual, technology and organisation. The individual group consists of self-efficacy, anxiety, competence, autonomy and relatedness. An employee may be highly competent in using artificial intelligence, however, if the technology causes too much anxiety, then it may create a barrier to its adoption. Technology groups consisting of perceived ease of use and perceived usefulness emphasises the importance of functionality, accessibility of artificial intelligence. The technology can be very powerful and helpful for employees, however, if one does not know how to use it, then different sorts of struggles may appear. Finally, the group of organisation refers to guidelines, leadership role, policies on encouragement to use artificial intelligence in the workplace. Essentially, this group should define the stance of the organisation. Together, these groups contribute to the overall behavioural intention to use AI in the workplace. In essence, it can be stated that the constructs of perception have been researched and applied in different contexts, some of them date back to the 1970s. Technology adoption is widespread, thus understanding of the underlying factors causing its adoption has been a significant topic for researchers in different sectors and industries. One of the most widely accepted models regarding technology adoption is TAM. Over the years, researchers have expanded it and added different factors to increase its explanatory power, however, its core parts perceived ease of use and perceived usefulness remained of significant importance to this day.

### 2. EMPIRICAL RESEARCH LEVEL OF INFLUENCE OF PERCEPTION AND INTENTION TO USE TECHNOLOGY

This chapter provides insights from the research carried out by the different authors regarding the use of constructs of perception in various cases of technology adoption, including artificial intelligence.

#### 2.1. Research on the links between perception and intention to use technology

Most of the existing research discovers either direct or indirect influence of constructs of perception to technology adoption in the workplace in general, including artificial intelligence. Direct influence fundamentally refers to an influence between perceptual factors on technology adoption without any mediator. Mediators, in this case, could be individual innovativeness, organisational culture, etc. This paper, however, aims to focus on how aforementioned constructs of perception in Chapter 1 directly influence technology adoption in the workplace.

Self-efficacy. With the intention to explain the potential impact of self-efficacy on behavioural intention to use mobile wallet solution in the hospitality industry, researchers have collected 413 responses from eligible respondents in Malaysia. Interestingly, perceived usefulness and perceived ease of use were found to have a statistically significant and direct impact on behavioural intention (Lew et al., 2020). However, authors distinguished self-efficacy into mobile self-efficacy and technological self-efficacy. The former was discovered to have a statistically significant relationship with behavioural intention to use mobile wallet solutions, whereas the latter was not. This is slightly surprising, however, according to Lew et al. (2020), this could be due to the fact that the mobile wallet solution is already effective and simple to use for its main function (i.e., making payments) without demanding extensive technological skills (e.g., account verification). Similar discovery was made in Jordan where 398 students from three private universities provided their answers in a survey. Alongside other factors, self-efficacy was found to have statistically significant and direct effect on behavioural intention among students to adopt mobile wallet technology (Mater et al., 2021). Another research which used a survey that combined both online and paper methods of data collection on the adoption of mobile health services in China, collected a total of 386 valid responses. The study revealed that self-efficacy significantly and directly influences the users' behavioural intention to adopt mobile health services, underlining its importance in technology adoption alongside other factors like effort expectancy and performance expectancy (Liu et al., 2022). Another research conducted in the medicine sector employed a different approach and used surveys to collect information from the medical staff over time. 428 responses were collected in total. Medical staff was using medical AI extensively and from time to time provided answers in the survey. The majority of the respondents were female (73.6%), aged between 21 and 30 years, and had received undergraduate education (81.9%). The study found that participation of the medical staff in the development process of AI had a positive influence on the acceptance of medical AI, with AI self-efficacy and AI anxiety acting as intermediary variables (Huo et al., 2023).

Anxiety. The research conducted by Kaya et al. (2022), has reported a total sample of 350 participants, predominantly females, 74%, with an age mean of 24.23 years, recruited through convenience sampling. Hypothesis 3 proposed an inverse relationship between AI Anxiety and attitude toward AI. The results showed significant negative relationships between all constructs of AI Anxiety and attitudes toward AI. Importantly, those with higher AI anxieties showed less forgiveness regarding the negative aspects of AI; at the same time, it contributed 20% to the explained variance. More significantly, the learning anxiety related to AI was important to predict both positive and negative attitudes toward AI, which pointed out that fear of knowledge and competence acquisition of AI might result in a more positive attitude. Further, configuration anxiety toward AI was associated with less forgiving attitudes toward the negative aspects of AI, which indicated apprehensions of humanoid AI. At the same time, the anxieties of job replacement by AI development did not predict attitudes toward AI, probably because the dominant part of the participants was not from the technology industry and therefore did not experience the pressure that their jobs could be replaced by AI. Overall, the findings underline the need to address various anxieties related to AI to result in more positive attitudes towards its integration into society. Another research in China examined perceptions of HR managers concerning AI adoption. Using an online panel, data was collected using surveys from 512 respondents. Results revealed that HR managers holding positive or optimistic beliefs about AI were more inclined to accept its adoption, whereas those with higher levels of AI anxiety were less ready (Suseno et al., 2022). The participants were mainly HR managers, sourced from different company backgrounds across China, where 65.3% were female and 34.7% were male. Therefore, individual attitudes and anxieties of HR representatives were found to be statistically significant predictors of behavioural intentions towards AI adoption. This has certain implications for organisations which must ensure that employees not only have the skills in AI but also positive perceptions to embrace the change (Suseno et al., 2022). Research in the finance sector employed investors, a total of 445, to investigate potential impact of trust, anxiety, performance expectancy and preference towards behavioural intent to use robo-advisors in financial decision making. Results revealed that although trust and performance expectancy are significant contributors to the behavioural intention to use robo-advisors, anxiety among investors makes them avoid the adoption of AI-driven financial technologies (Fatima, and Madhumita, 2024). For investors to adopt such technology, the issue of anxiety has to be addressed by AI- based financial service providers.

Competence, autonomy and relatedness. As mentioned previously, the constructs of competence, autonomy, and relatedness are mostly adopted from self-determination theory. Research carried out with a sample of 591 pre-service teachers from 10 different departments of a state university in Turkey, focused on psychological, emotional, and individual influences on technology adoption intentions. Interestingly, this research is one of the unique attempts to implement a technology acceptance model together with self-determination theory. Researchers have developed an extensive research model on explaining the behavioural intentions of teachers towards technology adoption and have discovered that all three basic psychological needs, such as autonomy, relatedness and competence have a direct and significant impact on behavioural intentions of teachers (Sahin, and Şahin, 2022). Additionally, researchers have found a statistically significant and direct link between perceived ease of use and perceived usefulness on behavioural intentions. To this date, the potential role of basic psychological needs in explaining the behavioural intention towards artificial intelligence have been largely neglected in academic research, especially in the current times of such a speedy development of AI (Moradbakhti et al., 2022). Thus, the authors attempted to fill the existing literature gap in terms of the influence BPN has on technology acceptance. The research based on a 2×2 factorial online experiment involving 282 participants from either Austria or Germany concluded that autonomy, relatedness and competence revealed strong positive correlations towards the behavioural intentions to use AI assistant.

Perceived Ease of Use and Perceived Usefulness. As mentioned earlier, perceived ease of use and perceived usefulness are important constructs while explaining an individual's behaviour intentions. For such reasons to explain artificial intelligence adoption in e-commerce, Wang et al. (2023) conducted the research and applied the technology acceptance model. Based on the questionnaire responses out of 220 participants in Pakistan, the authors have established a significant impact between perceived usefulness and behavioural intention to use artificial intelligence in ecommerce. Perceived ease of use and perceived usefulness, on the other hand, were found to have a significant relationship, however, the authors' did not attempt to establish a link between aforementioned factor and behavioural intention. The research on employees' behavioural intention to use voice recognition technologies (VRTs) in the workplace in Saudi Arabia has delivered different results. With a slight adoption of the classical technology acceptance model, the authors have discovered that perceived usefulness and perceived ease of use directly and significantly influence the behavioural intention towards the aforementioned technology (Majrashi, 2022). The research results are based on 300 responses from a survey. Interestingly, perceived usefulness and perceived ease of use collectively explains 68.9% variance in employees' answers towards attitude, another important construct in this research. In the sector of transportation and mobility services, the research has been done on investigating the factors contributing to behavioural intention towards e-bike sharing among Chinese residents. The study findings based on 441 respondents have found a statistically significant and direct relationship between perceived ease of use, perceived usefulness and behavioural intention of adopting aforementioned technology. Interestingly, perceived ease of use has been found to have the most significant impact on the intention to use e-bike sharing system among Chinese residents (Li et al., 2022).

**Organisational support.** Research in Malaysia attempted to investigate the adoption of artificial intelligence among SMEs with a survey involving 196 owners or managers representing various sectors: services, manufacturing, construction, agriculture, and mining industries. The study has used judgmental sampling, collecting data through online surveys. The results showed the top management commitment and organisational readiness have a significant effect on AI adoption, while competitive pressure, employee adaptability, and external support do not, which were other hypotheses raised by the authors (Lada et al., 2023). The implication suggests the need for the SMEs to better focus on improving management commitment and organisational preparedness in order to adopt AI technologies successfully as only the effective implementation of AI in the workplace can lead to realisation of greater benefits from investments in AI. Therefore, a strong commitment from top management, such as executives and senior leaders, serves as a signal for the whole organisation that AI is an organisational strategic priority in terms of aligning organisational efforts and resources toward adoption. Another research has arrived at a similar conclusion. The paper-based and online responses of 358 respondents-employees working in the insurance sector-were collected for assessing AI's utility in minimising human error, accessing data of consumers, improving risk assessment, and detecting fraud in Northern India. Essentially, the objective of a research was to find out the factors which affect AI adoption among the employees of the insurance industry. The study revealed that top management support and financial readiness significantly affect employees' intention to adopt AI; however, technological competence was not found to be significant (Gupta et al., 2022). These findings suggest that strong organisational support and adequate financial resources would be imperative for effective AI adoption at work. In other words, investment in management commitment and financial readiness can considerably improve AI implementation results. That is, the commitment of the top management and their continuous support become very crucial in fostering an innovative culture, often leading to technological improvement through a top-down approach that enhances organisational effectiveness (Gupta et al., 2022).

Having discussed the main constructs of perception from empirical perspective, Table 2 presents a summary on authors' findings on the aforementioned constructs of perception and intention to use technology.

## Authors' findings on constructs of perception on intention to use technology

Tabl	le	2
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Constructs of perception	Authors' ideas		
Individual	Lew et al. (2020)	Mater et al. (2021)	
Self-efficacy	Technological self-efficacy was discovered to have a statistically significant relationship with behavioural intention to use mobile wallet solutions in the hospitality industry.	Self-efficacy was found to have statistically significant and direct effect on behavioural intention among students to adopt mobile wallet technology.	
Individual	Suseno et al. (2022)	Fatima, and Madhumita (2024)	
Anxiety	HR managers holding positive or optimistic beliefs about AI were more inclined to accept its adoption, whereas those with higher levels of AI anxiety were less ready.	Revealed that although trust and performance expectancy are significant contributors to the behavioural intention to use robo- advisors, anxiety among investors makes them avoid the adoption of AI-driven financial technologies.	
Individual	Şahin, and Şahin (2022)	Moradbakhti et al. (2022)	
Competence, autonomy, relatedness	Developed an extensive research model on explaining the behavioural intentions of teachers towards technology adoption and have discovered that competence, autonomy and have a direct and significant impact on behavioural intentions of teachers.	The research results concluded that autonomy, relatedness and competence revealed strong positive correlations towards the behavioural intentions to use AI assistant.	
Technology	Lew et al. (2020)	Wang et al. (2023)	
Perceived Usefulness	Perceived usefulness and perceived ease of use were found to have a statistically significant and direct impact on behavioural intention to use mobile wallet solution in the hospitality industry.	Established a significant impact between perceived usefulness and behavioural intention to use artificial intelligence in e-commerce.	
Technology	Li et al. (2022)	Majrashi (2022)	
Perceived Ease of Use	Perceived ease of use has been found to have the most significant impact on the intention to use e-bike sharing system among Chinese residents.	Have discovered that perceived usefulness and perceived ease of use directly and significantly influence the behavioural intention towards the Virtual Recognition Technology (VRT).	
Organisation	Gupta et al. (2022)	Lada et al. (2023)	
Organisational support	Revealed that top management support and financial readiness significantly affect employees' intention to adopt AI.	Revealed that top management commitment and organisational readiness have a significant effect on AI adoption.	

Source: created by the author.

In conclusion, based on the findings from the studies of other authors, we can conclude that the behavioural intention to use any technology is linked with multiple factors. Therefore, it is a multifaceted issue. Self-efficacy is a salient positive driver whereas anxiety is regarded as a deterrent. Perceived ease of use has been proved to deliver multiple benefits and is also a positive driver towards the behavioural intention. Collectively and not, competence, autonomy and relatedness prove the necessity to have the required skills, being able to choose and have a sense of belonging. Additionally, the importance of the ability of individuals and social relations is emphasised. Besides, perceived usefulness persistently enhances the degree of intention toward the adoption of AI, showing how important the practical benefits of technology are. Finally, solid organisational support in the form of commitment, guidance, communication by management is of critical importance to ensure a supportive environment for artificial adoption in the workplace. These findings suggest that individual, technological and organisational aspects need to be taken into account in order to enhance the behavioural intention.

#### 2.2. Research model of influence of perception and intention to use technology

This subchapter provides a review of empirical findings based on groups as explained previously in the literature review. In summary, there are nine individual oriented studies from seven different countries, four technology oriented studies from four different countries and two organisation oriented studies from two different countries. In total, this subchapter covers empirical findings from fifteen different researches. Three tables were formed depending on a group and a research model together with hypotheses is presented at the end of the subchapter.

The significant majority of researchers mentioned in this subchapter used quantitative methods to evaluate the influence of each construct of perception to behavioural intention to use a technology, depending on the context such as objectives of a study.

The third table presents the empirical findings from the first group related to individual and which comprises constructs of perception such as self-efficacy, anxiety, competence, autonomy and relatedness. Since the analysis and discussion of these findings was presented in the previous subchapter, the table provides an overview on influence of each construct. The fourth table presents the empirical findings from the second group related to technology and which comprises constructs of perception such as perceived ease of use and perceived usefulness. The fifth table presents the empirical findings from the third group related to organisation and which consists of one construct of perception, namely organisational support.

## Influence of constructs of perception on intention to use technology

Veen	A with one	Location	Individual				
y ear	of the study	Self-efficacy	Anxiety	Competence	Autonomy	Relatedness	
2020	Lew et al.	Malaysia	Influence				
2021	Mater et al.	Jordan	Influence				
2022	Liu et al.	China	Influence				
2022	Li et al.	China	Influence				
2022	Şahin, and Şahin	Turkey			Influence	Influence	Influence
2022	Moradb akhti et al.	Germany/Au stria			Influence	Influence	Influence
2022	Kaya et al.	Turkey	Influence	Influence			
2022	Suseno et al.	China		Influence			
2023	Huo et al.	China	Influence	Influence			

Source: created by the author.

### Influence of constructs of perception on intention to use technology

Voor Author		Location of	Technology		
r ear	Aumor	the study	Perceived Usefulness	Perceived Ease of Use	
2023	Wang et al.	Pakistan	Influence		
2020	Lew et al.	Malaysia	Influence	Influence	
2022	Li et al.	China	Influence	Influence	
2022	Şahin, and Şahin	Turkey	Influence	Influence	

Source: created by the author.

### Influence of constructs of perception on intention to use technology

Table 5

Voor	Authon Location of		Organisation
rear	Author	the study	Organisational support
2023	Lada et al.	Malaysia	Influence
2022	Gupta et al.	India	Influence

Source: created by the author.

The research model for further analysis in subsequent chapter was created. Based on the analysis above, the created model is formulated in the Figure 2 and is presented below.



#### Figure 2 Research model of influence of perception on intention to use technology

As presented in the research model, the behavioural intention to use the artificial intelligence in the workplace can be influenced by eight constructs of perception, namely self-efficacy, anxiety, competence, autonomy, relatedness, perceived ease of use, perceived usefulness and organisational support. In order to explain the relation between these constructs and the intention, the research will be completed by selecting a technology that has been widely used on a global scale. As a result, these are the hypotheses raised for the qualitative research:

Hypothesis 1: Self-efficacy positively influences intention to use AI in the workplace.

Hypothesis 2: Anxiety negatively influences intention to use AI in the workplace.

Hypothesis 3: Competence positively influences intention to use AI in the workplace.

Hypothesis 4: Autonomy positively influences intention to use AI in the workplace.

Hypothesis 5: Relatedness positively influences intention to use AI in the workplace.

Hypothesis 6: Perceived ease of use positively influences intention to use AI in the workplace.

Hypothesis 7: Perceived usefulness positively influences intention to use AI in the workplace.

Hypothesis 8: Organisational support positively influences intention to use AI in the workplace.

### 3. EMPIRICAL RESEARCH OF INFLUENCE OF PERCEPTION AND INTENTION TO USE TECHNOLOGY

This chapter of the thesis provides research methods, research data analysis, a discussion of the results, and an evaluation of the research results.

### 3.1. Research methods

**Aim of the research** – to investigate the influence of perception towards AI use in the workplace in order to determine the impact of technology, individual and organisation-oriented constructs of perception on AI use in the workplace.

### **Objectives of the research:**

- 1. To evaluate the link between technology oriented constructs of perception (perceived ease of use, perceived usefulness) and AI use in the workplace.
- 2. To evaluate the link between individual oriented (self-efficacy, anxiety, competence, autonomy, relatedness) constructs of perception and AI use in the workplace.
- 3. To evaluate the link between organisation oriented constructs (organisational support) of perception and AI use in the workplace.

**Research methods and hypotheses.** This research implemented a qualitative method. In particular, through the use of semi-structured interviews. This method is efficient when aiming to understand the thoughts, feelings, beliefs, perceptions of the participant by delving more deeply into the topic of research (DeJonckheere, and Vaughn, 2019). Purposive sampling has been used by putting an emphasis on criteria: use of ChatGPT at work. Depending on the situation, the author used probing questions. Interview protocol presents eight questions asked with relation to hypothesis and is presented below in Table 6.

### **Interview protocol**

Hypothesis	Question to reveal insights
<b>Hypothesis 1:</b> Self-efficacy positively influence intention to use AI in the workplace	How confident do you feel about your ability to use ChatGPT in the workplace?
	Probing questions: why, can you expand?
<b>Hypothesis 2:</b> Anxiety negatively influence intention to use AI in the workplace	In what ways does the use of ChatGPT in the workplace contribute to the feeling of anxiety?
	Probing questions: why, can you expand?
<b>Hypothesis 3:</b> Competence positively influence intention to use AI in the workplace	What would you say about being successful in your most recent attempts to use ChatGPT?
	Probing questions: why, can you expand?

<b>Hypothesis 4:</b> Autonomy positively influence intention to use AI in the workplace	What would you say about having full autonomy when deciding whether to use ChatGPT in the workplace?
	Probing questions: why, can you expand?
<b>Hypothesis 5:</b> Relatedness positively influence intention to use AI in the workplace	Would you say that by using ChatGPT in the workplace you feel being a part of something else, bigger, etc.?
	Probing questions: why, can you expand?
<b>Hypothesis 6:</b> Perceived ease of use positively influence intention to use AI in the workplace	What features or other aspects of ChatGPT contribute to the feeling towards its usage in the workplace being easy or hard?
	Probing questions: why, can you expand?
<b>Hypothesis 7:</b> Perceived usefulness positively influence intention to use AI in the workplace	In what ways do you believe the use of ChatGPT has impacted your work?
	Probing questions: why, can you expand?
<b>Hypothesis 8:</b> Organisational support positively influence intention to use AI in the workplace	What would you say about the role your organisation plays with regards to ChatGPT use in the workplace?
	Probing questions: why, can you expand?

**Research organisation.** The author invited to participate in the research on a social media site LinkedIn. 22 people responded from various industries and were provided with additional information about the research and reassured that their identities will remain undisclosed. Interviews took place between March and April, 2024. All 6 out of 6 interviews were held online via Microsoft Teams or Google Meet. The average interview time was 33 minutes and 35 seconds. At the beginning of the interview participants were asked if they agreed to be recorded. All six participants out of six agreed.

**Research participants.** After the initial chat with potential participants and their approval to participate in the research, each was prescribed identification code and was together with publicly available information were put into summarising Table 7 presented below.

#### **Summary of participants**

Identification	Sector
P1	Marketing
P2	Software Engineering
Р3	Finance
P4	Media
P5	Marketing

#### 3.2. Data analysis and the discussion of the results

**Data analysis.** At first, all interviews were transcribed. Content analysis method of data processing using the deductive coding approach was used. A coding framework consisted of constructs of perception within three groups. Initially, a thorough review process took place to gain an overall understanding of the data. This particular stage involved multiple back and forth steps and revisits, resulting in getting a better impression and recognising patterns relevant to hypotheses. Later on, the author did tagging of text segments that corresponded to each construct and then connected these codes into categories. Once again, these categories were reviewed and refined and subcategories emerged. Then the frequency was calculated.

**Discussion of the results.** The discussion of the results is based of three groups that aim to meet the objectives of the research. The author starts with individual related group, then technology related group. Finally, finishes with organisationa related group.

**Self-efficacy** (individual). Based on the results of the analysis, four out of six participants expressed their feelings that were added into a confidence subcategory. Additionally, there was a noticeable difference among perspectives shared by participants. For instance, only participant 5 felt positively with regards to having confidence in the ability to use ChatGPT in the workplace. "As a strategy creator at a small advertising creative studio and with an experience for over a year now and not just some random prompts once in a while but daily, I feel really positive in my ability" (Participant 5, 2024, p. 61). Others, on the other hand, had a negative outlook which results in avoiding performing specific tasks using the help of ChatGPT(Participant 1, 2024, p. 53), changing levels of perceived confidence over time(Participant 2, 2024, p. 55) and being too optimistic (Participant 4, 2024, p. 59). Interestingly, one common unit all participants shared is the impact of time which leads towards the refinement of confidence at some point in time. This could be caused by an inefficient amount of interaction done yet or the level of expertise. Nevertheless, it can be stated the levels of confidence may have a tendency to vary in time as every single participant exhibited such feelings at some point in time. Although one participant exhibited positive perceived confidence, three out of four shared a negative view towards their perceived confidence. Table 8 summarises excerpts from interviews and presents emerged subcategories.

Therefore, it can be concluded that according to the available information from interviews, positive influence of self-efficacy on AI usage intention is not consistently supported across the majority of participants interviewed.

### Summary of excerpts from interviews

Subcategory (self-efficacy)	Excerpts	Count
Confidence	Participant 1 [Frankly speaking, I perceive myself as not very confident while using ChatGPT and I usually avoid using it if I need to perform certain tasks], Participant 2 [At first sight you may think that's just a piece of cake and that's exactly what I was thinking back in the day. That optimism reduced quite quickly within my first days of use.], Participant 4 [sometimes I feel before opening it that it will be easier, at least in the early days I was expecting to get my answers in a matters of seconds.], Participant 5 [As a strategy creator at a small advertising creative studio and with an experience for over a year now and not just some random prompts once in a while but daily, I feel really positive in my ability.]	4

Source: created by the author.

Anxiety (individual). After careful analysis, concerns regarding anxiety towards behavioural intention to use artificial intelligence in the workplace can be described using three distinct subcategories, which are privacy, transparency and learning. Interestingly, these subcategories correspond to some degree with classification provided in the academic literature (Li, and Huang, 2020). Privacy concerns hold for most of respondents, four out of six, transparency related anxiousness - three out of six, learning - two out of six. In total, every single respondent expressed some aspect of anxiety. Regarding privacy concerns, participants primarily were concerned about sharing confidential information as stated by Participant 1 (2024, p. 53) "some data I have is highly sensitive and I am not sure if I want to upload it". Despite displaying such concern, some participants are using workarounds to still be able to apply ChatGPT in the workplace (Participant 4, 2024, p. 59)Transparency is regarded as having a struggle to understand the basis or the logic of the results provided by ChatGPT after sharing the information or submitting a prompt. "From time to time, I notice that references may not be connected with the actual argumentation, and that really makes me anxious" (Participant 4, 2024, p. 59). Learning anxiety was related to a feeling related to having an improper type of education, not technical. Table 9 summarises excerpts from interviews and presents emerged subcategories.

Essentially, although potential causational factors seem to be different, it can be concluded that AI anxiety is an alarming issue that is present among each participant.

Summary of excerpts from interviews

Table 9

Subcategory (anxiety)	Excerpts	Count
Privacy	Participant 1 [some data I have is highly sensitive and I am not sure if I want to upload it.], Participant 3 [Sometimes I just want to hit submit button and upload, but	4

	due to confidentially, I cannot.], Participant 4 [When uploading potentially sensitive information, I just hide aspects or change them into dummies, this way I can ensure confidentiality], Participant 5 [Still to this day I feel that I cannot upload some part of information that my employer may consider as confidential.]	
Transparency	Participant 1 [I remember when I was summarising the thoughts of my team members' work, I just couldn't understand on what basis the results were provided.], Participant 4 [From time to time, I notice that references may not be connected with the actual argumentation, and that really makes me anxious.], Participant 6 [feels like that sometimes the outcomes are not that transparent, especially with API documentation.]	3
Learning	Participant 1 [I guess if I could free up some time and dedicate it towards learning, maybe I could learn it better but it is not that easy if you are not from technology sector.], Participant 4 [over time I have improved on writing prompts, made them more efficient. Not sure how to put it, but I am pretty sure this led to being more calm.]	2

**Competence (individual).** Based on interviews, one of the most essential parts that defined the effective implementation of ChatGPT in the workplace was related towards actual capacity to write effective prompts. This has resulted into a prompt literacy subcategory. Prompt literacy, as any other type of literacy, is developed over time and with a sustained amount of effort. Five out of six participants expressed thoughts with relation to competence. In general, participants mentioned the need for continuous improvement in their capability to write efficient prompts (Participant 1, 2024, p. 53) or seeing the positive effects that come with higher level of competence, such as reducing the number of prompts needed (Participant 4, 2024, p. 59). Table 10 summarises excerpts from interviews and presents emerged subcategories.

Therefore, it can be stated that participants recognise an element of mastery needed towards being able to write efficient prompts.

Subcategory (competence)	Excerpts	Count
Prompt literacy	Participant 1 [Seeing how my colleagues are using it, I have so much to learn.], Participant 2 [Even though I feel that I am already saving time on certain tasks but being more equipped on writing prompts could help me save even more time.], Participant 3 [I applied some things I learnt on LinkedIn, so it was quite a good experience but overall I think there is much to learn.], Participant 4 [Now, what used to take, I do not know, more than 10 prompts, now usually takes less than 5.], Participant 5 [I am totally more equipped now compared to the whole experience it used to be.]	5

Summary of excerpts from interviews

Table 10

Source: created by the author.

Autonomy (individual). Based on interviews, one subcategory emerged related to the aspect of being in control of one's own actions and having a decision making power whether to use ChatGPT in the workplace. Four out of six expressed their opinion with regards to having autonomy. Essentially, three participants mentioned that they feel having full autonomy to use ChatGPT at work whereas the remaining one put an emphasis that the autonomy may possess certain limits. "Therefore, I would like to say that I feel that I have autonomy to certain degree" (Participant 3, 2024, p. 57). Table 11 summarises excerpts from interviews and presents emerged subcategories.

Nevertheless, it can be argued that having autonomy is an essential aspect for employees, allowing them to make a decision on their own.

Subcategory (autonomy)	Excerpts	Count
Control over decision	Participant 1 [I think I do have full autonomy.], Participant 3 [Therefore, I would like to say that I feel that I have autonomy to certain degree], Participant 4 [I believe I have total freedom to use it whenever I want at whatever given task, and], Participant 5 [I think I have full autonomy with the actual usage, and this freedom allows me to experiment and integrate the tool in various aspects of my work]	4

Summary of excerpts from interviews

Table 11

Source: created by the author.

**Relatedness (individual)**. Based on provided answers, sense of belonging can be categorised into three different types, team, profession and change. Interestingly, such categorisation suggests an interesting glance on boundaries of belonging. Collectively, all six participants fell under these subcategories. Feeling a sense of belonging in a team refers to being part of some change within the team. For instance, seeing others share common practices on using ChatGPT efficiently urge an individual to test it as well (Participant 5, 2024, p. 61). Another one, regarding the profession, suggests that some individuals, irrespective of industry, have a slight feeling of obligation towards the profession. As a result, this type of belonging seems to cross the boundaries of organisation. In other words, knowing that other people from the same profession are using artificial intelligence in their work pushes towards adoption (Participant 2, 2024, p. 55). Last but not least, some respondents simply realise that some wider change is happening around them and they want to be a part of it (Participant 6, 2024, p. 63). Table 12 summarises excerpts from interviews and presents emerged subcategories.

Therefore, willingness to act can be understood from a sense of belonging which has three subcategories: team, profession and change.

### Summary of excerpts from interviews

Subcategory (relatedness)	Excerpts			
Team	Participant 1 [On mondays we have our team bi-weekly meeting and members of a team share on their newest content generation strategies.], Participant 3 [after the newest development and seeing how it can handle financial data, I just feel I have to find ways how to be a part of it.], Participant 5 [Sharing tips and tricks with ChatGPT has become part of our team DNA.], Participant 6 [there was even a slight push, a positive one, from my team members to start using it.]	4		
Profession	Participant 2 [I just know that my friends at other software companies are allowed to use, I think it may have some effects on my skills if I don't try to use it.], Participant 4 [I know that some of this knowledge will help for me to progress in my career.], Participant 5 [Most of people in my field use it, you have to use it if you want to stay in the game.]	3		
Change	Participant 3 [My LinkedIn news feed is full of other analysts recommendations on how to use it, such as significant turbulence it has made], Participant 4 [I am really curious what other developments will bring], Participant 6 [I just want to keep as close as possible with these new updates, new possibilities, because they represent the future of our profession.]	3		

Source: created by the author.

**Perceived ease of use (technology)**. Based on the comments provided by respondents, only a single subcategory emerged with regards to perceived ease of use of ChatGPT and all six out of six respondents fall under this category. Interestingly, neither of the respondents mentioned having any difficulties with the product itself. However, this does not sound surprising as we human beings are highly familiar with the use of computers for quite some time now and an interface resembling a usual chat system should not be a high barrier for behavioural intention, especially among employees using computers on a daily basis. However, this does not sound surprising as we human beings are highly familiar with the use of computers for quite some time now and an interface resembling a usual chat system should not cause significant barriers for behavioural intention (Participant 2, 2024, p. 55). This, however, is in line with research done in the past. Table 13 summarises excerpts from interviews and presents emerged subcategories.

Therefore, based on the interviews, it can be stated that none of the users experienced issues with actual use of a product.

#### Summary of excerpts from interviews

Subcategory (PEOU)	Excerpts	Count
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Experience	Participant 1 [The intuitive use of interface makes it really accessible.], Participant 2 [similar as chatting with your friend on any messaging platform.], Participant 3 [black screen, keyboard, just direct a mouse, type something you want and submit, I think it can not be easier than this.], Participant 4 [All of use nowadays use computers at work, so], Participant 5 [The interface is very easy, I guess it is for everyone, you totally cannot complain.], Participant 6 [For a software engineer like me, it's super easy to use, nothing else to add here.]	6

**Perceived usefulness (technology).** Based on the interviews, two significant types of perceived benefits emerged which were put into two subcategories, speed and efficiency. Speed refers to how quickly a specific task at hand is resolved by an employee. From the other perspective, it delivers time saving benefits. Efficiency is regarded as the amount of work that can be done within the same time frame. Ultimately, both lead towards some other benefits, such as higher performance or additional time for other tasks. Interestingly, participants had experienced at least one aforementioned benefit and mentionings related to these benefits were heard even at times when the central focus of a question was not related to that. An interesting aspect is that speed seems to be relevant more when the task does not require significant attention or detail (Participant 2, 2024, p. 55). This usually happens when the employee is asked to provide some initial thoughts, concepts, summaries, etc. on specific topics (Participant 4, 2024, p. 59). Therefore, it can be stated that the features of a task at hand are relevant with regards to this perceived benefit. While being more present among seemingly more experienced users, efficiency, on the other hand, seems to be more achievable with a higher level of competence (Participant 5, 2024, p. 61). Table 14 summarises excerpts from interviews and presents emerged subcategories.

Furthermore, two groups of perceived benefits with regards to ChatGPT use in the workplace emerged, speed and efficiency. Based on interviews, both were significant aspects driving behavioural intention to use.

Subcategory (PU)	Excerpts	Count
Speed	Participant 3 [the extraction of relevant details from reports. This task usually takes a lot of time, but now I save at least a couple of hours a month], Participant 4 [now, creating a proposal for another article is a really, really fast process.], Participant 6 [I mean it really helped me to interpret the code written by other engineers, my team members, way faster compared to what it used to take.]	3
Efficiency	Participant 1 [I have to review quite a lot of work from my team members, just allows me to be more efficient when I ask for quick summaries.], Participant 2 [I recognised that I can create more drafts for code problem	4

#### Summary of excerpts from interviews

documentation in dedicated amount of time for such task.], Participant 4	
[I recognised very early that I tend to outsource some boring tasks to it,	
ultimately it makes me more efficient as I can work on some more	
interesting tasks.], Participant 5 [I am more efficient at generating new	
marketing ideas, writing some content for tutorials]	

Organisational support (organisation). Analysis suggests that five respondents out of six are part of a group that is either supported by the organisation to some level and some measures which were deployed or have not received any sort of recommendation or guidelines. However, one organisation due to internal conflict has decided to completely ban the use of ChatGPT in the workplace (Participant 2, 2024, p. 55). Therefore, three distinct subcategories emerged: restrictive approach, grey zone approach and supportive approach. Most respondents fall under the grey zone approach. On one hand, one could argue that the grey zone approach is great for increasing the autonomy of employees as you hand over the entire decision making process to them. However, the presence of a restrictive approach provides a different glance, especially if the organisation introduces it after misconduct by an employee which otherwise could have been avoided (Participant 2, 2024, p. 55). On the other hand, it does seem that all participants operate within certain limits imposed by oneself. Moreover, it has to be noted that some participants were coming from smaller companies which could result in an overall higher level of trust between the management and employees as the relationships tend to be closer. However, one heavy user mentioned that employees received a supportive letter on the use of ChatGPT and was indeed happy about it (Participant 6, 2024, p. 63). Table 15 summarises excerpts from interviews and presents emerged subcategories.

To summarise, a restrictive approach seems to be the last effort to be taken by the organisation and was found to be present only once among six respondents. Grey zone approach suggests that companies do not provide any guidelines, however it does not seem to be hindering the behavioural intention either.

Summary of excerpts from meet view	<b>Summary</b>	of	excerpts	from	inter	rviews
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Subcategory (org. support)	Excerpts	Count
Restrictive approach	Participant 2 [Sadly, but after that incident the management has decided to ban the use of ChatGPT, basically no one can access it with computers received from corporate.]	1
Grey zone approach	Participant 3 [Not sure, really, really not sure as we have not received any guidelines or haven't had to sign under a new policy.], Participant 4 [nothing was actually introduced in our company, no procedures, no guidelines.], Participant 4 [at least at this point in time we are on our own and free to use, at least that is how I treat the current situation.], Participant	3

	5 [We just had some internals discussions but for now it is totally a go.]	
Supportive approach	Participant 1 [I remember there were some guidelines published but, honestly, I did not really have much time to a look into.], Participant 6 [However, someone really put quite some effort into creating some effective strategies that they learned from their own experience. It really helped; clarity was indeed needed in the beginning.]	2

Finally, the Table 16 presents an overview of the results discussion. We can clearly see the most important topics which can be considered as subcategories that appeared during interviews. However, the frequency measure does not necessarily mean that the hypothesis is confirmed. The next section presents the evaluation results of the research.

### Summary of categories and emerged subcategories from interviews

Table 16

Categories	Subcategories	Frequency
Individual		
Self-efficacy	Confidence	4
Anxiety	Privacy	4
	Transparency	3
	Learning	5
Competence	Prompt literacy	5
Autonomy	Control over decision	4
Relatedness	Team	4
	Profession	3
	Change	3
Technology		
Perceived Ease of Use	Experience	6
Perceived Usefulness	Speed	3
	Efficiency	4
Organisation		
Organisational support	Restrictive approach	1
	Grey zone approach	3
	Supportive approach	2

Source: created by the author.

#### **3.3.** Evaluation of the research results

This section discusses the results of the hypothesis testing obtained during the analysis of the interview data, which revealed the influence of perception an employee has on artificial intelligence to its adoption in the workplace. The first hypothesis H1 was rejected, while remaining hypotheses H2 to H8 were supported. Each hypothesis is discussed in more detail below.

**Hypothesis 1: Self-efficacy positively influences intention to use AI in the workplace.** Based on the results from interviews, self-efficacy was found to be not significant, therefore the hypothesis was rejected. Four out of six interviews expressed thoughts in relation to self-efficacy, however only Participant 5 shared a positive view (2024, p. 61). Whereas other remaining participants commented on their confidence from a negative standpoint.

**Hypothesis 2:** Anxiety negatively influences intention to use AI in the workplace. According to the results from interviews, anxiety was found to be significant, therefore the hypothesis is accepted. Additional subcategories emerged, such as privacy, transparency and learning. Important to note that collectively all participants expressed a certain type of anxiety. Although each participant experiences anxiety to some degree, they still tend to use artificial intelligence in the workplace, suggesting that some other factors outweigh the level of anxiety they encounter.

**Hypothesis 3: Competence positively influences intention to use AI in the workplace.** Based on the results from interviews, competence was found to be significant, therefore the hypothesis was accepted. Each participant mentioned something relevant in having a higher competence level, except one. Some of them realise there is a gap between their knowledge and the knowledge of colleagues, others already see the improvements of writing effective prompts.

**Hypothesis 4:** Autonomy positively influences intention to use AI in the workplace. In respect to the results from interviews, autonomy was found to be significant, therefore the hypothesis was accepted. Three out of four participants that were included in the subcategory called as control over decision mentioned that having full autonomy leads to their ability to experiment and try out new things.

**Hypothesis 5: Relatedness positively influences intention to use AI in the workplace.** According to the results from interviews, relatedness was found to be significant, therefore the hypothesis is accepted. Collectively every participant belongs to one of the subcategories which were defined as team, profession and change. During interviews, feeling a sense of belonging was felt as a strong driver to use ChatGPT in the workplace.

Hypothesis 6: Perceived ease of use positively influences intention to use AI in the workplace. Based on the results from interviews, perceived ease of use was found to be significant,

therefore the hypothesis was accepted. Collectively all six participants were put into an experience subcategory.

**Hypothesis 7: Perceived usefulness positively influences intention to use AI in the workplace.** According to the results from interviews, perceived usefulness was found to be significant, therefore the hypothesis is accepted. Two subcategories emerged, speed and efficiency. Speed is mostly associated whenever a task requires some initial thoughts on a particular subject. Efficiency aspect, on the other hand, was expressed from seemingly more experienced users.

**Hypothesis 8: Organisational support positively influences intention to use AI in the workplace.** Based on the results from the interview data, organisational support was found to be insignificant, therefore the hypothesis cannot be confirmed. Although some participants expressed their positive feelings toward having certain guidelines with respect to the use of AI in the workplace, however, the majority of participants have not received any type of support.

To reflect on the objectives of the research, it can be concluded that four of out five individual oriented hypotheses were confirmed, except for self-efficacy. Remaining, such as anxiety, competence, autonomy and relatedness were confirmed proving the importance of individuality aspect. Technology oriented aspect was proved to be essential as both hypotheses were confirmed, perceived ease of use and perceived usefulness. However, to the author's great surprise, the research results did not allowed to confirm the relevance of organisational support. As a result, Figure 3 below presents empirically validated research model accounting for the elimination of self-efficacy and organisational support.



Source: created by the author.

# Figure 3 The empirical research model of influence of perception on intention to use technology

### CONCLUSIONS

- A concept of perception has been defined as having multiple constructs, namely self-efficacy, anxiety, competence, autonomy, relatedness, perceived ease of use, perceived usefulness and organisational support.
- Through literature review the links between the influence of perception and intention to use technology were examined. Results revealed that each construct of perception was applied in other researches and proved its significance in explanatory power.
- 3. The analysis of empirical level of researches regarding the influence of perception and intention to use technology revealed insights that each construction of perception was found to have a direct significant impact on behavioural intention to either specific technology or artificial intelligence.
- 4. After evaluating the results of theoretical and empirical research of constructs of perception and intention to use technology, a research model of constructs of perception and intention to use technology was devised and suggested to view each construct from one of three groups: individual, technology or organisation.
- 5. After empirical evaluation of the research model on influence of perception and intention to use technology, results revealed six out of eight hypotheses were found to be confirmed. Only hypothesis one regarding self-efficacy and hypothesis eight regarding organisational support could not be confirmed. This resulted in elimination of the aforementioned constructs of perception from the empirically validated research model of influence of constructs of perception on intention to use technology.

Milkus, Konradas (2024). *Darbuotojų suvokimo apie dirbtinį intelektą įtaka jo pritaikymui darbovietėje*. Magistro baigiamasis darbas. Kaunas: Vilniaus Universitetas Kauno fakultetas, 63 p.

### SANTRAUKA

Temos aktualumas. Kaip ir daugumos technologijų atveju, yra esminis ryšys tarp suvokimo apie technologiją ir jos pritaikymo. Ketinimas jį naudoti darbo vietoje labai priklauso nuo darbuotojo suvokimo. Apskritai organizacijos paprastai gauna didelę naudą, jei jų darbuotojai taiko naujas technologijas, nes tai tiesiogiai veikia darbuotojų įsitraukimą, produktyvumą ir gali paskatinti inovacijų kultūrą. Nepaisant to, kad darbuotojas norėtų išnaudoti visas galimybes, jis turi turėti teigiamą požiūrį. Už tokio pozityvumo gali slypėti tam tikri veiksniai, pvz., aiškus technologijos teikiamos naudos supratimas, tikėjimas, kad gali ir iš tikrųjų nori ją pritaikyti. Kita vertus, neigiamas suvokimas gali atgrasyti nuo veiksmų. Neigiamo suvokimo atsiradimo priežastys gali būti įvairios – nuo nerimo iki jausmo, kad gali būti pakeistas, neturint reikiamų įgūdžių ar išsilavinimo. Nepaisant to, kad suvokimo vaidmenį tyrė įvairūs tyrėjai kitų technologijų atvžilgiu ir skirtinguose kontekstuose, vis dar yra gana nedaug tyrimų, tiriančių ryšį tarp suvokimo ir dirbtinio intelekto pritaikymo darbovietėje.

**Darbo objektas.** Darbuotojų suvokimo apie dirbtinį intelektą įtaka jo pritaikymui darbovietėje.

**Darbo tikslas.** Išanalizuoti darbuotojų suvokimo apie dirbtinį intelektą įtaką jo pritaikymui darbovietėje.

#### Darbo uždaviniai:

- 1. Pateikti suvokimo sampratą.
- 2. Išnagrinėti sąsajas tarp suvokimo ir ketinimo naudoti technologijas.
- 3. Išanalizuoti technologijų suvokimo ir ketinimo naudoti tyrimų empirinį lygį.
- **4.** Remiantis teorinių ir empirinių tyrimų analize, suformuluoti suvokimo ir ketinimo naudoti technologijas įtakos tyrimo modelį.
- **5.** Atlikti empirinį tyrimo modelio vertinimą suvokimo ir ketinimo naudoti technologijas įtakai ir pateikti rezultatus.

**Darbo struktūra ir apimtis.** Magistro darbą sudaro įvadas, trys dalys ir išvados. Pagrindinę darbo dalį sudaro 46 puslapiai, įskaitant 16 lentelių ir 3 paveikslėliai. Taip pat pateikiami 6 priedai. Mokslinės literatūros sąrašą sudaro 71 literatūros šaltinis.

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## APPENDIXES

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#### **Transcript from interview with Participant 1**

#### 1. How confident do you feel about your ability to use ChatGPT in the workplace?

Frankly speaking, I think about myself as not very confident while using ChatGPT and I usually avoid using it if I need to perform certain tasks such as drafting detailed marketing reports or generating creative content for campaigns. In other words, whenever high detail is needed, I just do not even think about using it. Even though I am the lead of a marketing team and I manage a team of five, I think that I do not have that kind of confidence in using ChatGPT as my colleagues have. And I suspect that the root of this problem is my limited knowledge of how this technology works. You know, when I analyse market trends, I feel that AI-generated answers tend to be unreliable. And I guess, everyone who is coming not from a technology background feels the same. The constant evolution of AI technology requires some technical literacy that I need to somehow get over time.

#### 2. In what ways does the use of ChatGPT in the workplace contribute to the feeling of anxiety?

I guess if I could free up some time and dedicate it towards learning, maybe I could learn it better but it is not that easy if you are not from technology sector. It is difficult to understand where to start learning this tool. Also as my role as a team lead is demanding, I can not find the time to learn new technology skills. I remember when I was summarising the thoughts of my team members' work, I just couldn't understand on what basis the results were provided. It feels like it is so easy to use, like everybody is talking but actually there is much going on behind. So if I use this tool I know that I need to double check and in the end it takes up more of my time. What else, some data I have is highly sensitive and I am not sure if I want to upload it.

# 3. What would you say about having full autonomy when deciding whether to use ChatGPT in the workplace?

Well, if you are asking how my employer thinks, I think I do have full autonomy. I would not understand why someone would decide to not allow me to use this tool.

#### 4. What would you say about being successful in your most recent attempts to use ChatGPT?

Seeing how my colleagues are using it, I have so much to learn. Once or twice I do not remember now I tried to generate a social media campaign for a new product launch on ChatGPT. You know, just out of curiosity. I tried it during hectic times, when there were a lot of deadlines to meet. I was a bit disappointed about the outcome. Generated ideas were generic and lacked specific industry insights. Suggestions did not resonate with the target audience. I ended up correcting these ChatGPT suggestions instead of creating new ones and that took more time I think. Though if you have zero ideas, it gives you a not a bad head start.

# 5. Would you say that by using ChatGPT in the workplace you feel being a part of something else, bigger, etc.?

Using ChatGPT in the workplace definitely makes me feel like I'm a part of something bigger. On Mondays we have our team bi-weekly meeting and members of a team share their newest content generation strategies. During those meetings our team members use all technology and they come up with brilliant ideas. To see them work like this is inspiring and motivating. As I am also learning how to brainstorm with ChatGPT, I feel that one day it could be something big. It is exciting to be working at these times.

6. What would you say about the role your organisation plays with regards to ChatGPT use in the workplace?

Well, they are being supportive of the use of ChatGPT. I remember there were some guidelines published but, honestly, I did not really have much time to look into. These guidelines were a good start, like basic instructions for using ChatGPT. However with my busy schedule managing the team I did not find the time to go through the given material. If I had to choose, I would have chosen some dedicated training on it.

# 7. What features or other aspects of ChatGPT contribute to the feeling towards its usage in the workplace being easy or hard?

The intuitive user interface makes it really accessible. What is easy is that you don't need to be an expert in tech to use it. Everything is so simplified there. It gets a bit hard if you want to leverage and manage all of the features this tool can offer. So, while the interface is user-friendly, the deeper functionality can be challenging to master without some guidance.

#### 8. In what ways do you believe the use of ChatGPT has impacted your work?

Using ChatGPT has definitely impacted my work in terms of speed and efficiency. I have to review quite a lot of work from my team members, which just allows me to be more efficient when I ask for quick summaries. Sometimes, when I need to go through multiple campaign reports, instead of reading each one in detail, I use ChatGPT to generate their summaries. It actually saved me a lot of time to complete other tasks I have. Also, I tried using it for brainstorming and generated some good ideas with it. There are times when you have to deliver something very quickly for the potential client. When you are running out of time, ChatGPT can really do the magic. So there are times when ChatGPT can prolong your work, but it can also make it shorter.

Source: created by the author.

#### **Transcript from interview with Participant 2**

#### 1. How confident do you feel about your ability to use ChatGPT in the workplace?

Honestly, now, I feel that I am way better than I used to be. I guess those people who have never tried it think it is easy but in reality the first trials are really disappointing. On the other hand, I know that I could be even better if I dedicated more time to it. At first sight you may think that's just a piece of cake and that's exactly what I was thinking back in the day. That optimism reduced quite quickly within my first days of use. I noticed that depending on the task that I have to do, my confidence also depends. If I suspect that the task may be challenging to do with ChatGPT, then I decide to do it manually, just not to waste any time.

# 2. In what ways does the use of ChatGPT in the workplace contribute to the feeling of anxiety? I use ChatGPT on my personal laptop, because it is banned at my company. The ban was introduced after it became public that someone in the finance department uploaded sensitive financial information. I do not think that I experience some sort of anxiety, just the inconvenience.

# 3. What would you say about having full autonomy when deciding whether to use ChatGPT in the workplace?

If I had full autonomy to use ChatGPT that would be very convenient for me. At the moment we are not allowed to use it freely. So when I use it, I have to be cautious and I can not experience every benefit it gives. Full autonomy would give me some space to experiment with the tool, improve my work, make it faster.

#### 4. What would you say about being successful in your most recent attempts to use ChatGPT?

Recently I had different luck with it. Once when I used ChatGPT to optimise a part of legacy code which was running too slow, the suggestions I got were good, but they didn't meet resonate with some features of our system. Even though I feel that I am already saving time on certain tasks but being more equipped on writing prompts could help me save even more time. When I learned a bit about writing prompts, the answers I got were much better and it definitely saved time and I didn't need to correct them.

# 5. Would you say that by using ChatGPT in the workplace you feel being a part of something else, bigger, etc.?

I guess it does make me feel like that when I use it on my personal laptop. I just know that my friends at other software companies are allowed to use it, and I think it may have some effects on my skills if I don't try to use it. It is very disappointing that my company is not supporting this new technology after the incident that happened. They can't see the bigger picture and I totally believe that some changes can be made to make it safe. I feel that it is a loss and maybe one day these regulations will be lifted.

# 6. What would you say about the role your organisation plays with regards to ChatGPT use in the workplace?

Well, as I said, my organisation does not allow the use of ChatGPT at all. Sadly, but after that incident, the management has decided to ban the use of ChatGPT, basically no one can access it with computers received from corporate. Even though it is banned, me and some other coworkers use it on our personal computers.

# 7. What features or other aspects of ChatGPT contribute to the feeling towards its usage in the workplace being easy or hard?

One thing that makes ChatGPT feel easy to use is how intuitive the interface is; it's similar as chatting with your friend on any messaging platform. The hardest part is creating a prompt to get the most accurate and

useful response. If our company could provide some guidelines and allow us to use ChatGPT, the daily tasks we do at work would be so much easier.

#### 8. In what ways do you believe the use of ChatGPT has impacted your work?

Using ChatGPT on my personal laptop has made my job faster and better even though I find myself juggling between two laptops. For instance, I recognized that I can create more drafts for code problem documentation in a dedicated amount of time for such a task. Also it helped me a lot when there are a lot of deadlines to meet in a short period of time. Sometimes ChatGPT answers can be raw, but they can be refined and customised, it just takes time. My work has been so much better since I started using this tool. Once in a while I receive some compliments from my manager. It is nice.

Source: created by the author.

#### **Transcript from interview with Participant 3**

#### 1. How confident do you feel about your ability to use ChatGPT in the workplace?

Honestly, I feel quite confident, but I know that I still have a lot to learn. I have been using it to improve my efficiency. ChatGPT helps me to analyse market trends, generate financial reports. When I have these drafts, I can customise them however I like. This has saved me a lot of time, which I usually dedicate to tasks that are more complex.

#### 2. In what ways does the use of ChatGPT in the workplace contribute to the feeling of anxiety?

One thing that really worries me is privacy and confidentiality. As a financial analyst I work with large companies' data. Sometimes I just want to hit the submit button and upload my queries directly, but due to confidentiality, I cannot. To make it secure I have to rephrase my questions and double check everything. As my company didn't provide any guidelines, everytime I use ChatGPT I am a bit worried about privacy.

# 3. What would you say about having full autonomy when deciding whether to use ChatGPT in the workplace?

As there are no guidelines provided from the company, we have full autonomy to use ChatGPT. I think that some boundaries should be set though.

#### 4. What would you say about being successful in your most recent attempts to use ChatGPT?

My recent attempts to use ChatGPT were mostly successful. I applied some things I learnt on LinkedIn, so it was quite a good experience but overall I think there is much to learn. When I was working on a project that required a detailed financial analysis of a new market, this tool gave me relevant data, which I could use to create an entry strategy.

# 5. Would you say that by using ChatGPT in the workplace you feel being a part of something else, bigger, etc.?

It actually does make me feel that I am a part of something bigger. My LinkedIn news feed is full of other analysts' recommendations on how to use it, highlighting the significant turbulence it has made in our field. It is exciting to see tips and knowledge sharing on social platforms. The community of this future tech is growing fast even though it has some haters. I can see that my team members often try using AI tools and the interest in it is growing fast. Also, I heard some interesting news about the newest developments. I believe that after the newest development and seing how it can handle financial data, I just feel I have to find ways how to be a part of it. For all those working in finance, I think we should be ready for some changes coming up.

# 6. What would you say about the role your organisation plays with regards to ChatGPT use in the workplace?

Not sure, really, really not sure as we have not received any guidelines or haven't had to sign under a new policy. The use of ChatGPT is kind of a grey zone in our company. As there is no opinion, no support, it can be frustrating. We have to rely on ourselves if we want to improve our work with AI tools. Though as all responsibility is in our hands, if something goes wrong, we could be punished.

# 7. What features or other aspects of ChatGPT contribute to the feeling towards its usage in the workplace being easy or hard?

One thing that really stands out is the simplicity. It's just a black screen, keyboard, just direct a mouse, type something you want and submit. I think it cannot be easier than this. It feels like it was created to make you feel light. On the other hand, I have faced some challenges when I try to get the most accurate answer.

#### 8. In what ways do you believe the use of ChatGPT has impacted your work?

My efficiency has improved a lot. One of the main improvements is in the extraction of relevant details from reports. This task usually takes a lot of time, but now I save at least a couple of hours a month by using ChatGPT to quickly summarise and highlight key points. Once in a quarter I analyse quarterly financial reports. It is so easy. I can input the document and get a summary of the main findings, which allows me to focus more on strategic analysis. Overall, despite the negatives, the impact of ChatGPT on my work has been positive.

Source: created by the author.

#### **Transcript from interview with Participant 4**

#### 1. How confident do you feel about your ability to use ChatGPT in the workplace?

I am very confident about my ability to use ChatGPT in the workplace. I work as a media analyst at a consultancy firm which is focused on public relations. I do a lot of reading, data analysis and report writing. As I started using ChatGPT, it became irreplaceable for me. I am able to prepare tasks much faster. For instance, when I analyse data from media campaigns, ChatGPT summarises key information. This not only speeds up the process but also allows me to focus on providing strategic recommendations to my clients. However, sometimes I feel before opening it that it will be easier, at least in the early days I was expecting to get my answers in a matter of seconds. When I realised what I can achieve with this tool, I want to make sure I make the most out of it. Carefully crafted prompts can indeed generate brilliant answers.

#### 2. In what ways does the use of ChatGPT in the workplace contribute to the feeling of anxiety?

It does contribute to the feeling of anxiety a bit. Mostly I care about the privacy and the accuracy of the given answers. When uploading potentially sensitive information, I just hide aspects or change them into dummies, this way I can ensure confidentiality while still making use of the tool. I always have to think about maintaining client confidentiality. From time to time, I notice that references may not be connected with the actual argumentation, and that really makes me anxious. But over time I have improved on writing prompts, made them more efficient. Not sure how to put it, but I am pretty sure this led to being more calm.

# 3. What would you say about having full autonomy when deciding whether to use ChatGPT in the workplace?

I believe I have total freedom to use it whenever I want at whatever given task, and this flexibility allows me to integrate ChatGPT into various aspects of my work seamlessly.

#### 4. What would you say about being successful in your most recent attempts to use ChatGPT?

I am becoming more and more successful, especially when it comes to writing good prompts. I have learned how to juggle with them. I used to struggle with getting the detailed insights on media impact reports. Now, what used to take, I do not know, more than 10 prompts, now usually takes less than 5.

# 5. Would you say that by using ChatGPT in the workplace you feel being a part of something else, bigger, etc.?

Yes, sure, it does make me feel like this. Field of PR and media analysis is very exciting and it is always changing. By integrating ChatGPT into my workflow, I know that some of this knowledge will help me to progress in my career. To be the best we have to learn new skills and improve ourselves as technology is also moving forward. I am really curious what other developments will bring, as the potential for AI to revolutionise our industry is big. In my team almost everyone uses ChatGPT. That is the reason why the job we do is so efficient.

# 6. What would you say about the role your organisation plays with regards to ChatGPT use in the workplace?

In terms of ChatGPT use, nothing was actually introduced in our company, no procedures, no guidelines. At least at this point in time, we are on our own and free to use it, at least that is how I treat the current situation. I enjoy the given freedom, because I can explore, see where it fits in my work. Even though the company does

not provide any help or guidance, in our team we help one another with some tips. Though some training would be useful.

7. What features or other aspects of ChatGPT contribute to the feeling towards its usage in the workplace being easy or hard?

All of us nowadays use computers at work, so integrating ChatGPT into our existing workflows feels quite natural. The interface is so simplified and easy to understand. As for the difficult part, it can be challenging to phrase prompts.

#### 8. In what ways do you believe the use of ChatGPT has impacted your work?

For instance, now, creating a proposal for another article is a really, really fast process. I used to write and edit for hours and now I can achieve the same result in minutes. Now I can dedicate more time for deep analysis and strategic thinking. Basically, I recognized very early that I can outsource some boring tasks to it, ultimately it makes me more efficient as I can work on some more interesting tasks.

Source: created by the author.

#### **Transcript from interview with Participant 5**

#### 1. How confident do you feel about your ability to use ChatGPT in the workplace?

As a strategy creator at a small advertising creative studio and with an experience for over a year now and not just some random prompts once in a while but daily, I feel really positive in my ability. I can say that I use it quite often during the day. In our industry not only great ideas win, we also have to be very fast at what we do.

#### 2. In what ways does the use of ChatGPT in the workplace contribute to the feeling of anxiety?

Even though I support the idea of using ChatGPT at work, there are some aspects which make me feel a little bit worried. If I am dealing with sensitive client information, I am not sure how ChatGPT ensures privacy and do they store that data or not. Still, to this day I feel that I cannot upload some part of information that my employer may consider as confidential. I am cautious about what I put in ChatGPT and I am aware that there are some risks.

# 3. What would you say about having full autonomy when deciding whether to use ChatGPT in the workplace?

I think I have full autonomy with the actual usage, and this freedom allows me to experiment and integrate the tool in various aspects of my work without restrictions. I also feel that the tool can inspire me when I working on some strategy related work. For instance, I may not know all the theories but I can ask for some support. However, I just recognize the similarity across the conclusions it generates, which sometimes makes me question the uniqueness of the insights provided. But I use this information as supportive in a sense to my creative thoughts, so it is not a problem for me.

#### 4. What would you say about being successful in your most recent attempts to use ChatGPT?

The interface is very easy, I guess it is for everyone, you totally cannot complain. You don't need a particular skill to start using it. At the moment I can not even think of a feature which is hard.

# 5. Would you say that by using ChatGPT in the workplace you feel being a part of something else, bigger, etc.?

Yes, I feel that I am a part of something bigger. Our creative studio is small, but is very innovative and growing. Marketing is quite competitive in general and you cannot fall back. As far as I know, most people in my field use it, you have to use it if you want to stay in the game. This mindset significantly changed our work environment and AI integration was fast and unavoidable. We all use it and I think most of us are motivated to learn to use it even better. Sharing tips and tricks with ChatGPT has become part of our team DNA. At the end of day, we are working for the greater good of a client.

# 6. What would you say about the role your organisation plays with regards to ChatGPT use in the workplace?

Environment in our marketing studio is supportive in general even though this value is a bit informal. We just had some internal discussions but for now it is totally a go. Me and my team members are allowed to experiment with the tool however we like. There are no strict protocols to follow. Our manager mostly cares about good results and achievements.

7. What features or other aspects of ChatGPT contribute to the feeling towards its usage in the workplace being easy or hard?

All of us nowadays use computers at work, so integrating ChatGPT into our existing workflows feels quite natural. The interface is so simplified and easy to understand. As for the difficult part, it can be challenging to phrase prompts.

#### 8. In what ways do you believe the use of ChatGPT has impacted your work?

I usually do the tasks twice as fast as I did before. I am more efficient at generating new marketing ideas, writing some content for tutorials, and even creating initial drafts for client presentations. In the future I hope to be even more skilled at this tool.

Source: created by the author.

#### **Transcript from interview with Participant 6**

#### How confident do you feel about your ability to use ChatGPT in the workplace?

At the moment I feel quite confident. I was a bit sceptical before, but slowly I got used to it, and now I see the benefits. I do a lot of coding at work, ChatGPT helps me to optimise my tasks. Once I had to review my colleague's code. Usually it is a long and tiring process, but when I use ChatGPT, I do the job way faster.

#### In what ways does the use of ChatGPT in the workplace contribute to the feeling of anxiety?

I am mostly concerned about transparency and privacy. For example, feels like that sometimes the outcomes are not that transparent, especially with API documentation. It could be that documents I upload are too long, I am not sure. Also as I said, another problem is privacy of the code and data. I am afraid that sensitive information could be leaked. Despite the good things ChatGPT brings, sometimes I think that I am losing my own problem-solving skills. So you have to be mindful about it.

#### What would you say about having full autonomy when deciding whether to use ChatGPT in the workplace?

I enjoy having full autonomy. I think it is a great thing that our company allows it and we can experiment and help ourselves by doing the job quicker. But autonomy comes with responsibilities and you have to make sure if it is safe.

#### What would you say about being successful in your most recent attempts to use ChatGPT?

I would like to say that I am already quite good at it. My team members are very supportive, we all discuss and share tips to make our daily tasks easier. I have learned to formulate my prompts and sometimes I don't even need to correct the results. It has already saved me a lot of time and enhanced the quality of the codes I create.

#### Would you say that by using ChatGPT in the workplace you feel being a part of something else, bigger, etc.?

Yes, of course I would say that! In our small IT development company, there was even a slight push, a positive one, from my team members to start using it. We are all learning together and improving our prompts. The tech industry is changing and everything is moving forward. I just want to keep as close as possible with these new updates, new possibilities, because they represent the future of our profession.

#### What would you say about the role your organisation plays with regards to ChatGPT use in the workplace?

I remember once all of us received a letter from the top management stating the company supports the use of ChatGPT and that has been the case up until now. I hope it stays that way. Though any training or tips were not provided. But we like this freedom. Colleague really put quite some effort into creating some effective strategies that they learned from their own experience. It really helped; clarity was indeed needed in the beginning. We shared these informal strategies among the team, so the transition was smoother. Currently me and my team members feel that we are advanced in the use of ChatGPT.

## What features or other aspects of ChatGPT contribute to the feeling towards its usage in the workplace being easy or hard?

For a software engineer like me, it's super easy to use, nothing else to add here. It is as easy as it can get. I think that even people who are not in my field would agree as well.

#### In what ways do you believe the use of ChatGPT has impacted your work?

I mean, it really helped me to interpret the code written by other engineers, my team members, way faster compared to what it used to take. When I review colleagues' code using ChatGPT I can quickly understand main points and revert back. Also my coding improved as well. I explore different algorithms and coding techniques.

Source: created by the author.