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HUMAN RESOURCE MANAGEMENT

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MASTER THESIS

<p>NUOTOLINIO DARBO IR AUTONOMIJOS POVEIKIS IT DARBUOTOJŲ LOJALUMUI: MEDIJUOJANTIS ORGANIZACINIO ĮSITRAUKIMO VAIDMUO</p>	<p>THE EFFECT OF REMOTE WORK AND AUTONOMY ON EMPLOYEE LOYALTY: THE MEDIATING ROLE OF ORGANIZATIONAL ENGAGEMENT AMONG IT WORKERS</p>
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INTRODUCTION

Relevance of the topic

The evolution in recent years in all job industries has increased the need for enhanced organizational engagement to ensure loyalty among employees. The new dynamics of the workplaces should raise the need to understand the factors that influence employee loyalty to retain skilled professionals. In Information Technology (IT) companies, high labour turnover has become critical concerns, as organizations struggle to maintain committed and loyal workers (Salunkhe et al., 2024). Research suggests that organizational engagement is important when it comes to reducing withdrawal and turnover intentions among employees (Juhdi et al., 2013). Consequently, exploring the outcomes of organizational engagement and its impact on employee loyalty is essential to address the turnover-related challenges in the IT sector.

In parallel, with innovations and growth in the IT industry and the COVID-19, remote working has become a very well-accepted way of working causing an increasing demand for autonomy and flexible work arrangements among employees (Waizenegger et al., 2020). As these changes take place in the workplace, understanding how autonomy and remote work influence organizational engagement and employee loyalty has become increasingly important. Accordingly, there is a growing need to understand the concepts through which autonomy and remote work influence organizational engagement and employee loyalty as an outcome.

On the practical side, the findings can be useful for HR managers and organizations that are dealing with challenges of remote and hybrid work. If companies understand how autonomy and remote work shape loyalty through organizational engagement, they can design better policies to keep their employees motivated and committed. This is especially important in IT, where turnover is high and skilled professionals are in demand.

Exploration Level

The evolving nature of work, driven by digital transformation has led to significant changes in how organizations engage and retain skilled employees (Khatoun et al., 2025). Prior research has examined concepts like autonomy, remote work, employee loyalty and types of engagement, highlighting their importance for employee attitudes and organizational outcomes (Hackman & Oldham, 1976; Saks, 2006; Golden & Veiga, 2005). The existing literature has

explored these concepts separately, or combining some variables (Humphrey et al., 2007; Saks, 2006; Saleem & Khan, 2024; Zöllner & Sulíková, 2021; Boskovic, 2021). However, after examining the existing literature the necessity of the present study is revealed because of certain gaps.

First, while there is research exploring engagement in remote or hybrid workplaces, it explores engagement in general or work engagement (Allen, Golden, & Shockley, 2015), rather than organizational engagement. Autonomy and employee loyalty have been addressed either on their own or in paired relationships, such as autonomy and satisfaction or satisfaction and loyalty or remote work and job satisfaction (Humphrey et al., 2007; Saks, 2006; Saleem & Khan, 2024). While many separate impacts of autonomy and remote work on job outcomes are examined, such as job satisfaction (Zöllner & Sulíková, 2021), employee engagement (Boskovic, 2021) they rarely explore how autonomy and remote work jointly influence employee loyalty through the mediated effect of organizational engagement in the IT industry. This gap is especially identified in the IT sector, where these dynamics are increased by the industry's remote, and autonomy-focused nature (Waizenegger et al., 2020).

Secondly, while autonomy is recognized as one of the main drivers of motivation and satisfaction through psychological empowerment and Self-Determination Theory (Deci & Ryan, 2000; Spreitzer, 1995), its relationship with employee loyalty lacks industry-specific research, even though there is research exploring the relationship between autonomy and employee retention (M & Philimis, 2025). Understanding how autonomy can result in loyalty is not only interesting but also practically important, given the high demand for skilled IT employees and the rising job-hopping culture (Bhandari et al., 2024).

Novelty of the thesis

Current study addresses employee loyalty mediated by organizational engagement how they are affected by job autonomy and remote work. This thesis fills this research gap by adopting an integrative approach that examines the interconnections between organizational engagement, autonomy, and remote work and their collective impact on employee loyalty. By focusing on IT professionals, this study also accounts for industry-specific factors, contributing to a more tailored understanding of organizational engagement in remote work settings. Theoretically, this topic shows a more extensive understanding of organizational engagement and its influence employee loyalty within the context of remote working and autonomy.

This study addresses the gaps by taking an integrative and sector-specific approach. By using a combined approach for these variables and focusing on a specific industry that uses remote work practices, the research aims to provide both theoretical contributions and practical insights for improving employee loyalty among IT workforce. By examining these dimensions, the research aims to demonstrate a more in-depth and detailed understanding how they influence employee loyalty. This study aims to provide empirical data, contributing new insights to the Human Resources field, as well as exploring specific needs and preferences for IT professionals.

Aim of the thesis

The aim of this thesis is to examine the impact of autonomy and remote work on employee loyalty mediated by organizational engagement among IT workers. The following objectives are formulated to achieve this aim;

1. To define the impacts of autonomy and remote work on employee loyalty through organizational engagement based on existing literature
2. To empirically test the impact of autonomy and remote work on employee loyalty.
3. To analyse organizational engagement as a mediating mechanism in the autonomy- loyalty and remote work-loyalty relationships.
4. To contextualize these relationships within the IT sector.

Research problem

How do autonomy and remote work affect employee loyalty, considering the mediating role of organizational engagement among IT workers?

Research Methods

This study uses a quantitative research approach using a survey-based methodology to collect data from IT professionals working in remote or hybrid settings. A non-probability self-selection sampling technique is utilized to target IT employees across various organizations. The survey consists of Likert-scale and some open-ended questions for demographics.

Data collection is conducted through an online survey platform on Google Survey, ensuring accessibility for IT professionals accustomed to virtual work environments. Statistical analysis, including regression modeling, will be applied to examine relationships between the independent variables (autonomy and remote work) and mediating variable (organizational engagement) the dependent variable (employee loyalty).

By applying this methodological approach, the study aims to provide empirical evidence that informs human resource strategies and organizational policies designed to enhance employee engagement, and retention in the IT sector.

This thesis is structured as follows. Introduction presents the research aim, objectives, and the research question. Chapter 1 presents a review of relevant literature and develops the conceptual framework. Chapter 2 outlines the research methodology, including the research design, data collection, analysis procedures and the development of hypotheses. Chapter 3 presents the empirical results of the study. Chapter 4 discusses the findings, concludes the thesis by summarizing the key findings, outlining the study's limitations, and suggesting recommendations for HR practices.

1. LITERATURE REVIEW

1.1 Organizational engagement: Conceptualization and relevance

Organizational engagement can be considered as employee's commitment to one's company regardless of the job one does and their perceived role as a member of the organization (Parent and Lovelace, 2018; Saks, 2019). It has been argued that there are two types of engagement: work and organizational engagement (Kular et al., 2008). Even though the outcomes or the motivators of the two engagement types do not really differ, literature explores them separately. Work engagement can be described as a positive and rewarding mental state related to one's job, evident by energy, commitment, and deep involvement (Schaufeli et al., 2002). Employees with high engagement tend to emphasize connection and positive emotions, whereas those with low engagement are more inclined to focus on negative emotions and authority (Roekel et al., 2023). Diversely, organizational engagement refers to the extent to which employees are emotionally and cognitively invested in the organization (Saks, 2006). It is argued there are three aspects of organizational engagement: emotional connection, cognitive investment, and behavioral commitment: Emotional connection is an employee's feeling of alignment with the organization, and its mission and culture; cognitive investment means the employee prioritizes organizational outcomes, while behavioral commitment displays loyalty to the company (Saks, 2006). In consequence, this type of engagement results in employees having a sense of pride about the company which they are a part of and recommending it to other people as an ideal workplace (Roberts & Davenport, 2002). Furthermore, organizational engagement has been identified as a stronger predictor of employee turnover compared to work engagement (Saks, 2006). Engaged employees are considered strategic assets (Bhatnagar, 2007), a status that can only be achieved through effective organizational engagement. Moreover, work engagement, which is considered to be more individual and personal, also has a significant contribution to organizational engagement (Roberts & Davenport, 2002). Additionally, research highlights that low employee engagement can add to mental and psychological challenges, such as stress and burnout, and explains engagement as the opposite of burnout (Byrne, 2022).

Organizational engagement, rather than job engagement, should be the ultimate objective for businesses because of its direct impact on performance making these strategies really important for the company (Saks, 2019). Strengthening organizational engagement could bring long-term value to the organization (Kundu & Lata, 2017). There are several reasons why organizations should care more about implementing organizational engagement strategies. It has been shown that keeping employees engaged at the workplace should be prioritized in organizations (Nikolova et al., 2019). Engagement is a crucial element in retaining skilled professionals in organizations

hence businesses aim to increase organizational engagement, and as it was revealed in an industry report, employees who are highly engaged are five times less likely to leave the organization (Vance, 2006). It is crucial for companies to retain highly skilled employees in such an environment, as it is predicted that 75% of the global workforce will be made up of millennials (Ertas, 2015).

Engagement is conceptualized by some scholars as a response to organizational resources, where employees respond to perceived support with higher levels of cognitive and emotional investment, which can then shape retention-related outcomes (Saks, 2006). Generally, engagement research increasingly sees engagement as a mediating mechanism linking job and organizational resources to performance and retention outcomes, rather than treating it only as a final or separate state (Christian et al., 2011; Crawford et al., 2010). For example, research shows that engagement connects work conditions (e.g., autonomy, support, and satisfaction) with important outcomes such as task performance and turnover intentions, supporting the view that engagement functions as a pathway (Christian et al., 2011; Crawford et al., 2010). This perspective is especially relevant for this study because it supports the theoretical logic for examining organizational engagement as a mediating variable between engagement-enhancing strategies (such as autonomy and remote work) and employee loyalty.

Previous research has consistently shown organizational engagement as a key mediating mechanism linking human resource practices to employee-related outcomes. Organizational engagement functions as a mediating tool through job design, rewards and recognition, perceived support from supervisors and the organization, as well as perceptions of fairness, influence important employee outcomes, including turnover intentions and organizational commitment (Saks, 2006). Engagement has been shown to mediate the relationship between talent management practices and employee retention, as well as between various HR practices such as career management, person–job fit, pay satisfaction, performance appraisal, and job control and employees' turnover intentions (Bhatnagar, 2007; Juhdi et al., 2013). Findings also indicate that organizational engagement, rather than job engagement, mediates the relationship between perceived organizational support and volunteer satisfaction and commitment (Malinen et al., 2017). Taken together, these findings support the view that organizational engagement functions as a mediating tool that can increase employee loyalty which is another central construct in this thesis.

1.1.2 Organizational engagement in the information technology sector

The relevance of organizational engagement becomes particularly important in remote and hybrid work contexts, where traditional concepts like control, supervision, and social interaction are reduced. In these environments, employees rely more heavily on internal motivational and self-discipline to regulate their behavior. Kahn's (1990) engagement framework states that engagement means the extent to which individuals are invested cognitively, emotionally, and behaviorally in their work roles, a process that becomes increasingly important in the IT sector. The IT industry is specifically faced with the challenge of job-hopping (Bhandari et al., 2024). Replacing an IT executive or a managerial position costs up to 200% (Lo, 2015) of one's salary making retaining employees in the IT industry the number one priority in organizations. Organizational engagement strategies can attract and retain employees, ultimately impacting the organization positively (Naidoo et al., 2021). As it was shown, perceived flexibility and supportive work-life policies, is among the strongest predictors of engagement and anticipated retention (Juhdi et al., 2013), which makes these strategies more relevant for the IT industry because of its common flexible work arrangements. Recent work design research further emphasizes that remote work increases the importance of self-regulation, which is closely associated with engagement. It has been shown that effective remote working depends on employees' ability to manage autonomy, workload, and communication, suggesting that engagement plays a key role in translating flexible work arrangements into positive outcomes (Wang et al., 2021) When organizational engagement is high, employees are better positioned to cope with the challenges of remote work, such as isolation and blurred work-life boundaries (Chen, 2024). Conversely, low engagement in remote contexts may increase disengagement and withdrawal, increasing the risk of turnover (Fatima et al., 2024.)

Organizational engagement can be created only if the organizations can identify the needs of the employees and integrate those needs in the company's structure. Therefore, due to intense market competition, organizations must align their strategic objectives with individual goals in order to increase organizational engagement (Nutov & Hazzan, 2014).

In summary, organizational engagement shows a deep emotional and cognitive connection between employees and their organization, which goes beyond only work engagement. Compared to work engagement, it indicates a stronger attachment to organizational values and goals and has been shown to play an important role in retention-related outcomes. The literature indicates that organizational engagement functions not only as an outcome of supportive practices, but also as a tool which such practices influence employee loyalty. This makes organizational engagement a

central construct in understanding employee loyalty, particularly in sectors characterized by high mobility and flexible work arrangements, such as the IT industry. By focusing on organizational engagement as the mediating variable, this research addresses the deeper organizational connection that is particularly important in the IT industry, where high turnover and retention challenges are common.

1.2 Job autonomy as a work design and its implications

Job autonomy can be described as “the discretion of employees to complete tasks when, where, in what order and in what way.” (Spiegelaere et al., 2016). Different dimensions of job autonomy have been identified in the literature over the years, each reflecting different aspects of employees’ discretion over their work (Breugh, 1985). Work method autonomy reflects employees’ freedom to decide the procedures and techniques for completing their tasks, while work scheduling autonomy concerns their ability to determine the order and timing of tasks, while work time autonomy relates to deciding when to begin and end work (Breugh, 1985). Locational autonomy, which was added later on to address the new working trends such as remote work and hybrid work, refers to the choice of where tasks are carried out (Spiegelaere et al., 2016). Job autonomy is positively correlated with employee engagement and organizational performance, making it a critical element in workplaces (Juyumaya, Torres-Ochoa, & Rojas, 2024). Giving employees higher levels of autonomy enables them to make more independent decisions, which increases their responsibility for work outcomes while also improving intrinsic motivation (Langfred & Moye, 2004).

The role of autonomy in strengthening engagement is mentioned in theories such as Self-Determination Theory (Deci & Ryan, 1985) and the Job Characteristics Model (Hackman & Oldham, 1976). These frameworks suggest that autonomy meets basic psychological needs, driving intrinsic motivation resulting in engagement. Employees who perceive autonomy in their roles often experience greater empowerment, and a stronger sense of responsibility (Zychová et al., 2023). Autonomy correlates positively with employee satisfaction and engagement (Slemp et al., 2018), and autonomy-supportive environments promote self-regulation and alignment with organizational goals (Nie et al., 2015). It has also been shown that autonomy can help reduce burnout by offering employees opportunities for personal growth and development, especially through workplace learning (Ruyseveldt et al., 2011).

Recent flexible time arrangements, which allow employees to choose their start and end times have made the concept of autonomy a crucial concept (Popma, 2013). In industries such as IT, where innovation and adaptability are on the rise, understanding autonomy is especially

impactful and effective. For instance, a study on Brazilian software developers found that higher levels of autonomy were associated with increased satisfaction and reduced work exhaustion, which are critical factors in retention (Barbosa et al., 2017). As mentioned previously, this is crucial in a sector associated with fast technological advancements and high employee turnover. It was also shown that allowing knowledge workers greater autonomy over their schedules has been recognized as a major advantage of remote work and a positive factor for employee well-being (Delanoeije et al., 2019). When employees can prioritize tasks and manage their work independently, they may develop a stronger connection to their work and organization, resulting in higher organizational engagement. Psychological empowerment, which includes autonomy, enhances intrinsic motivation and proactive behaviors, such as initiative and innovation (Singh & Sarkar, 2012).

Employees with high levels of autonomy often have more positive attitudes towards work because they feel trusted and empowered to take ownership of their work (Singh & Sarkar, 2012). For example, Self-Determination Theory emphasizes autonomy as an essential psychological need that improves intrinsic motivation and engagement (Deci & Ryan, 1985). Autonomy allows employees to align their tasks with their skills and interests, leading to a sense of fulfillment and accomplishment. Moreover, job autonomy is positively correlated with both job satisfaction and performance (Humphrey et al., 2007), with higher levels of autonomy associated with improved performance and greater satisfaction among employees through self-efficacy (Saragih, 2011). Therefore, it is suggested for managers grant more autonomy to employees to increase positive perceptions about work (Saragih, 2011). Hence, it can be inferred that employees with control over their work schedules, methods, and goals are more likely to feel valued and committed to their roles. Job autonomy is also positively correlated with employees' well-being and motivation, whereas a lack of autonomy has been associated with negative outcomes (Kubicek et al., 2017), which calls for attention. Another reason is the changing trends, as research showed the importance of workplace flexibility in attracting and retaining skilled employees has increased, particularly as workforce expectations have shifted toward greater emphasis on work-life balance (Burnett & Lisk 2021).

Autonomy is closely linked to the concept of employee empowerment which is used increasingly by human resources departments of organizations. Moreover, this implies the opportunity for an employee to make decisions without needing to ask their managers (Brad Shuck, Rocco, & Albornoz, 2011), which is strongly aligned with autonomy. This concept is closely tied to organizational engagement as employees are given the autonomy to make their decisions, prioritizing organizational outcomes. Empowered employees are more likely to align

their goals with organizational objectives (Singh & Sarkar, 2012). It was revealed that employees who have autonomy show higher organizational engagement, satisfaction, and commitment. (Seibert et al. 2011). It was also shown that even employees who naturally tend toward engagement may struggle to stay engaged when their work environment limits autonomy and involves repetitive or overly simplistic tasks (Byrne, 2022).

To summarize, job autonomy is a key job resource that provides employees with discretion over how, when, and where they perform their work. The literature consistently relates autonomy with higher motivation, engagement, satisfaction, and well-being. However, autonomy is most effective when supported by clear expectations and organizational guidance, rather than being unrestricted. In sectors such as IT, autonomy is particularly important, as employees rely mostly on independence and self-discipline to perform their tasks. These findings emphasize autonomy as an important organizational engagement strategy with the potential to strengthen employees' connection to the organization.

1.2.1 Autonomy in the information technology sector

The information technology (IT) industry has long been at the top when it comes to implementing remote work due to its reliance on digital tools and platforms. The nature of IT roles, such as software development, system administration, and data analysis, makes them well-suited for remote working since employees can perform tasks independently while communicating through virtual systems (Mahler, 2012).

IT professionals experienced higher levels of productivity during the transition to remote work due to reduced commute time and the freedom to plan their workdays (Waizenegger et al., 2020). Self-Determination Theory (Deci & Ryan, 1985) suggests that autonomy, a core feature of remote work, satisfies intrinsic motivational needs, enhancing engagement. Employees with flexible work arrangements are more likely to feel trusted and valued by their organizations, leading to greater commitment and reduced turnover (Humphrey et al., 2007). Job autonomy in IT roles also reduces work exhaustion and enhances learning motivation, even when learning demands are high. Providing employees with autonomy over work pace, procedures, and downtime can strengthen positive outcomes and reduce the negative effects of job demands (Shih et al., 2011). However, excessive autonomy without good support system can lead to feelings of isolation and disengagement, particularly in remote settings (Wang et al., 2021). This highlights the importance of providing remote IT employees with clear expectations, regular feedback, and opportunities for virtual interaction.

Autonomy allows employees to feel trusted and empowered, but it also requires organizational support to prevent negative outcomes such as stress or disengagement. In the IT sector, autonomy is especially critical because knowledge work relies on independence, creativity, and adaptability. This makes autonomy highly relevant as it can strengthen engagement and reduce turnover among IT professionals working in remote and hybrid contexts.

1.3 Remote work as an organizational engagement strategy

The COVID-19 pandemic accelerated the transition from traditional offices to remote work in workplaces. Remote work is commonly defined as a work arrangement where tasks and job-related activities are performed outside of the company's main office (Roberto et al., 2023). Before the pandemic, studies revealed mixed results regarding the impact of remote work on employees. Some research highlighted benefits such as improved well-being (Anderson et al., 2015), increased productivity and improved engagement (Delanoetje & Verbruggen, 2020), others mentioned possible downsides, including stress and isolation (Song & Gao, 2020; Noonan & Glass, 2012). There were still benefits shown to remote working even before the pandemic as findings in a Chinese IT company revealed remote work increased performance by 13% and decreased retention by 50% among employees who work from home (Bloom et al., 2015). Especially after COVID-19, research on remote working has also increased rapidly since its use has reached a peak during the pandemic. Since the pandemic has disappeared, remote working has not vanished as workplaces introduced hybrid model working. Recent studies show that people prefer to work from home rather than going back to the office after the pandemic since it has many benefits for employees (Brouwer & Mariotti, 2023). The COVID-19 pandemic triggered a lasting rise in working from home, with U.S. employees projected to work remotely about 20% of the time post-pandemic, four times the pre-COVID level, so researchers suggest hybrid work arrangements are here to stay (Barrero, Bloom, & Davis, 2021). In fact, it was shown that the majority of workers are willing to take significant reductions in pay in exchange for the opportunity to work from home two or three days per week.

Research after COVID-19 highlights that remote work has a significant positive influence on employee engagement and organizational commitment (Wijaya & Sari, 2025). The results suggest that, when well-managed, remote arrangements encourage motivation and loyalty, while the autonomy and flexibility they bring are essential in improving engagement. A survey of 316 employees across four service sector organizations in the UAE also found that remote work enhances work-life balance, saves time, supports independent work, and improves responsibility (Jawabri, Alarmoti, & Rehman, 2022). A recent study investigated the relationship between

working from home and key employee outcomes, work–life balance, and preferences regarding work models in the BPTO industry (Orešković et al., 2023). The findings indicated that employees of both genders reported high levels of positive attitudes and work–life balance across all work models, including fully remote arrangements (Orešković et al., 2023). More importantly, those working from home expressed a strong preference for continuing to work from home, suggesting that remote work can support both employee well-being and organizational retention (Orešković et al., 2023). Therefore, remote work was shown to positively affect employee motivation, engagement, and satisfaction. These findings suggest that remote work enhances engagement and addresses problems that can occur due to low organizational engagement such as retention in competitive sectors like IT.

There are other elements affecting the relationship between remote work and other constructs. Supportive organizational structures also shown to play an important role in enhancing remote work satisfaction (Stangrecka & Bagieńska, 2021). Good communication from managers and coworkers, and technological support, like IT training and access to reliable technology, are crucial for creating a beneficial remote work experience (Bentley et al., 2016). Findings also indicate that organizational social support contributes to improved employee well-being, while support for teleworkers is positively associated with greater job satisfaction and negatively associated with psychological strain (Bentley et al., 2016). Flexible work arrangements (FWA) defined as schedules that allow employees to plan the amount, timing, or location of their work (De Menezes & Kelliher, 2011). Studies have shown that FWAs increase organizational commitment, improving positive attitudes (Richman, Johnson, & Noble, 2011). Furthermore, they improve financial performance and reduce turnover (De Menezes & Kelliher, 2011). Remote work helps employees manage work-life balance by reducing stress and providing flexibility (García-Salirrosas et al., 2023).

In conclusion, studies highlight that remote work has generally positive effects on job organizational engagement, and retention, although outcomes depend on how well it is supported by the organization. Flexibility, work–life balance, and autonomy make remote work attractive, while risks such as isolation or role ambiguity may reduce its benefits if left unsupervised. These findings show that remote work does not improve engagement or loyalty on its own, but it creates conditions in which autonomy and support become more noticeable and important. As a result, the relationship between remote work and employee outcomes is best explained by examining how flexible work arrangements influence employees' experiences. Exploring remote work as an organizational engagement strategy can provide insights into how it influences loyalty, and whether it helps organizations address high turnover in the IT sector. For IT professionals, remote

and hybrid arrangements are now common practice. In summary, as organizations increasingly embrace remote work, understanding its effects on employee loyalty becomes essential for designing effective workplace policies.

1.4 Employee loyalty as an organizational outcome

Employee loyalty can be understood as a psychological and emotional attachment to the organization, where individuals demonstrate a sense of belonging and commitment (Koç, 2009). A more multidimensional definition has been made as follows “An individual’s perception that both the parties to a relationship have fulfilled reciprocal expectations that (a) denote enduring attachment between two parties, (b) involve self-sacrifice in the face of adversities, and (c) are laden with obligations of duty” (Hart & Thompson, 2007). Employee loyalty is often described as a psychological tendency characterized by identification with, emotional attachment to, and commitment toward the organization (Guillon & Cezanne, 2014).

The organizational outcomes of employee loyalty should be understood because of its high importance based on several findings. High levels of positive attitudes about work among employees can create greater employee commitment and improved performance, which in turn indirectly and positively influence overall organizational performance (Ali et al., 2010). Loyal employees typically avoid searching for alternative job opportunities, resist offers from other companies and show a positive approach to their responsibilities (Turkyilmaz et al., 2011). These behaviors contribute to reduced turnover, enhanced productivity, and improved organizational connection, which makes this concept valuable to organizations (Guillon & Cezanne, 2014). It is also closely linked to turnover intentions, as loyal employees are less likely to consider leaving their organization (Otto & Mamatoglu, 2015). Therefore, it is essential for organizations to attract and retain highly qualified and high-performing employees, a goal that can be achieved by strengthening employee loyalty (Matzler & Renzl, 2006). Another organizational benefit is reduced costs, as research indicates that employee loyalty makes a significant contribution to cost reduction, as loyal employees are more likely to support initiatives that enhance efficiency and reduce unnecessary expenses (Tomic et al., 2018). To strengthen this effect, organizations should actively try to improve loyalty through supportive management practices, motivational strategies, fair rewards, and opportunities for employees to contribute their ideas.

Employee attitudes toward their work have been consistently shown as a critical determinant of loyalty (Pološki Vokić, & Hernaus, 2015). When employees feel positive about their work they are more likely to feel aligned with their organization’s goals and values, creating a mutual relationship of trust and commitment (Lu & Gursoy, 2013). Research has showed a strong

positive correlation between job satisfaction, employee loyalty, productivity, and overall profitability, highlighting the critical role supportive organizational practices in both individual and organizational outcomes (Silvestro, 2002). Furthermore, trust in colleagues and management has been shown to significantly impact employee satisfaction and, ultimately, loyalty (Pham, H. H., & Tuan, T., 2023). Enhanced employee loyalty also significantly contribute to improved performance (Chao & Cheng, 2019). Hence, it can be stated that positive workplace perceptions play an essential role in predicting employee loyalty.

Loyalty is a critical factor in the IT industry due to the sector's dynamic nature, characterized by rapid technological advancements, a high demand for skilled professionals, and competitive job markets. Studies show that IT professionals who can balance work and personal life exhibit stronger organizational loyalty (Turetken et al., 2011). Moreover, flexible work arrangements and policies are also shown to promote employee loyalty by addressing personal needs and reducing burnout (Çivilidağ, A., & Durmaz, O. 2024), which can be achieved with remote working arrangements. However, a research conducted on software engineers in India indicates that loyalty itself does not directly result in specific outcomes when it comes to IT; rather, the absence of job satisfaction is what drives absenteeism and turnover intentions (Sreejesh & Nagra, 2011). Unlike findings in other industries, where loyalty has been shown to be negatively correlated with turnover, the study suggests that loyalty is not a significant predictor of absenteeism or turnover decisions (Sreejesh & Nagra, 2011). This implies that even if employees show loyalty, it does not necessarily determine whether they remain or leave the organization. For this reason, the present thesis focuses on the IT industry to examine this relationship in greater depth, since different industries can show different results for this construct.

Employee loyalty has been shown to reduce turnover, improve performance, and strengthen organizational outcomes in general. This makes loyalty a crucial outcome for this study, as it allows investigation into how autonomy and remote work, through engagement, can help IT organizations retain skilled professionals in a highly competitive environment.

1.5 The impact of remote work on employee loyalty

Remote work has become an important feature of modern workplace, changing traditional work structures and raising questions about its impact on employee loyalty. Study showed employees who transitioned to remote work reported higher levels of satisfaction due to decreased commuting time and increased flexibility in balancing personal and professional obligations, and more positive psychological attitudes, while their likelihood of leaving the job decreased (Bloom

et al., 2015). Remote work helps improve employees' intrinsic needs for autonomy and competence, which are essential factors of motivation (Deci & Ryan, 1985). Furthermore, it has been found that remote work reduces workplace stressors, such as office policies and other interruptions, while providing employees to structure their work in ways that they think are best for their productivity (Gajendran and Harrison, 2007).

It can be inferred that the positive impact of remote work can also contribute to greater employee loyalty directly or indirectly. The findings indicated that remote work has a positive link with organizational commitment and a negative association with turnover intention meaning they have reduced intentions to leave their organization (Jamal, Anwar, & Khan, 2023).

Moreover, remote work addresses specific challenges that might lead to disengagement. For example, it was highlighted that employees who struggle with work-life conflict often find remote work to be a good solution for creating balance, which significantly improves their perception of the organization (Golden & Veiga, 2005). Similarly, it is suggested that remote work can lessen the stress associated with rigid workplaces, leading to loyalty, particularly among working parents (Masuda et al., 2012). However, the relationship between remote work and loyalty is not without potential challenges. While remote work offers autonomy and flexibility, it can also lead to feelings of isolation and disconnection from colleagues, which may negatively impact commitment (Wang et al., 2021).

Research indicates remote work have generally positive effects on employees' evaluations of their working conditions. Empirical studies of employees working from home during the pandemic suggest that remote work increases the positive perception of the workplace, particularly during the early stages of telework arrangements (Bellmann & Hübler, 2020; Hashim, Bakar, Noh, & Mahyudin, 2020). Research showed flexible work arrangements in a public accounting firm, were also found to increase positive perception of the workplace compared to non-flexible arrangements (Almer and Kaplan, 2002). More rigorous meta-analytic evidence confirms a positive association between telework and, showing perceived autonomy as a key concept (Gajendran & Harrison, 2007).

However, these positive outcomes are not universal. Technology-intensive teleworking can reduce job satisfaction, particularly when work demands are high (Suh & Lee, 2017). Further research is needed to explore the interaction between remote work and work-life balance as not all employees benefit equally (Stangrecka & Bagieńska, 2021).

These findings suggest that while remote work has strong potential to strengthen employee commitment and retention, its effects are influenced by factors such as work design, technology demands, and interpersonal dynamics. This highlights the importance of organizational support in the use of remote work. Hence, this study finds value in analyzing remote work in the IT industry as one of the organizational engagement strategies since it has become so popular in the workplace, and the literature has shown links to employee loyalty.

1.6 Theoretical framework

1.6.1 Self- determination theory (SDT)

Self-Determination Theory (SDT) is an essential motivational theory that explains how human behavior is driven by the fulfillment of three basic psychological needs: autonomy, competence, and relatedness (Deci & Ryan, 2000). Intrinsic motivation tends to occur in individuals when these three needs are supported, which leads to enhanced engagement, well-being, and performance. Among these needs, autonomy, the sense of intention and control over one's actions, has been identified specifically important in workplace settings, which also falls under the scope of this study (Ryan & Deci, 2020). SDT has been broadly applied to analyze how job design, leadership style, and work environments impact employee outcomes. Recent research confirms that when employees feel autonomous and competent, especially in flexible and remote work environments, they show increased job satisfaction, organizational commitment, and reduced turnover (Laguerre & Barnes-Farrell, 2024). The study also argues that HR systems which support autonomy and competence enable organizations to make the most of their workforce (Laguerre & Barnes-Farrell, 2024). The result of this practice is an age-diverse workforce with stronger motivation, higher performance, greater commitment, and a stronger drive for continuous learning. Research also shows that intrinsic and identified motivation are positively linked to well-being, performance, and organizational citizenship, while lack of motivation is associated with negative outcomes (Van den Broeck et al., 2021). Hence, SDT is a strong theoretical foundation for examining how organizational engagement strategies, such as autonomy and remote work, influence employee loyalty, particularly in the autonomy-driven IT sector.

Remote work extremely relies on digital tools especially in the context of IT sector, so understanding how motivation influences technology acceptance is important. A study incorporated insights from Self-Determination Theory (SDT) to highlight the role of autonomy in employees' engagement with information and communication technology (ICT), where it was shown that when individuals have a sense of autonomy while using ICT, they are more likely to

learn and benefit from these tools effectively (Sorebo & Gulli, 2009). These findings support the argument that promoting autonomy through flexible work arrangements and supportive ICT practices is a crucial element in retaining motivated and committed IT professionals with higher levels of employee loyalty.

A meta-analytic review showed that perceived leader autonomy support (LAS) is a strong predictor of positive employee outcomes, aligning with Self-Determination Theory (SDT) (Slemp et al., 2018). Specifically, LAS was linked to higher intrinsic motivation, well-being, work engagement, and positive attitudes while reducing distress and negative behaviors (Slemp et al., 2018). These findings suggest that autonomy-supportive workplace improve employee functioning and provide effective management.

Therefore, Self-Determination Theory (SDT) provides a strong understanding for how autonomy, competence, and relatedness drive motivation and employee engagement. The emphasis on autonomy, particularly in remote work settings within the IT sector, is essential for enhancing organizational commitment and employee loyalty.

1.6.2 Social exchange theory (SET)

Social Exchange Theory (SET) is a crucial framework in organizational behavior that explains how all human relationships are based on mutual exchanges, where people weigh the benefits and the costs, where people try to gain the greatest benefits while keeping costs as low as possible in their interactions (Emerson, 1976). Remote work, however, can limit face-to-face social interaction and potentially cause feelings of isolation (Abgeller et al., 2022). So, in the remote work context, the social exchange is not merely social relationships, but exchanges between the organization and the employees. Responsible autonomy, which relies on mutual trust between employees and managers and is supported by employees' self-discipline and responsibility is an example of this type of exchange (Abgeller et al., 2022). When organizations provide flexible work arrangements, they provide employees' a better work–life balance (Schots & Taskin, 2005). From this perspective, autonomy is considered not only a job feature but an implication of organizational trust in the employee, which strengthens emotional bond with the organization.

Therefore, SET provides a theoretical foundation for this study by considering autonomy and other organizational engagement strategies as ways investments in relationships. In conclusion, SET suggests that when employees perceive support from their organization, they respond with positive attitudes and behaviors, including increased commitment and loyalty.

2. METHODOLOGY

2.1 Hypotheses development and conceptual model

This study looks at how autonomy and remote work influence organizational engagement and how they affect employee loyalty in the IT sector.

Autonomy is often seen as one of the most important aspects of job design because it gives employees freedom and control in their work. Self-Determination Theory argues that autonomy is a basic need, and when it is met, people feel more motivated and involved in what they do (Deci & Ryan, 2000). Research also shows that employees with more decision-making freedom are more engaged, especially in remote or digital contexts where independence is necessary (Boskovic, 2021; Langfred & Moye, 2004; Kubicek et al., 2017). For this reason, it is expected that autonomy will have a positive effect on organizational engagement (H1).

Remote work can also increase engagement by giving employees more flexibility and control over their tasks. The Job Demands–Resources framework suggests that flexibility works as a resource that reduces stress and supports motivation (Bakker & Demerouti, 2008; De Menezes & Kelliher, 2011). Telecommuting studies similarly show that when remote work is managed well, it is linked to stronger motivation and involvement (Turetken et al., 2011). Based on this, remote work is expected to have a positive effect on organizational engagement (H2).

Organizational engagement itself is closely linked to positive outcomes such as commitment and loyalty. Employees who are engaged show energy, dedication, and a stronger emotional connection to their organization, which makes them more likely to stay (Saks, 2006; Pološki Vokić & Hernaus, 2015; Salunkhe, Jain, Hinge, & Boralkar, 2024). Because of this, it is expected that organizational engagement will have a positive effect on employee loyalty (H3).

Existing research shows that autonomy strengthens employees' attachment to their organization by increasing motivation, responsibility, and a sense of ownership (Deci & Ryan, 2000; Langfred & Moye, 2004). These are central to engagement, which show employee's commitment into organizational goals (Saks, 2006). Since engaged employees are more likely to remain loyal (Pološki Vokić & Hernaus, 2015), engagement may be a mechanism that links autonomy with loyalty. Therefore, when employees experience autonomy, they may first become more engaged, which then increases their intention to stay with the organization. Accordingly,

organizational engagement is expected to mediate the relationship between autonomy and employee loyalty (H4).

Similarly, research shows that remote work offers flexibility and autonomy, which can contribute to engagement in the workplace (Bakker & Demerouti, 2008; Turetken et al., 2011). Flexible work arrangements can increase trust and empowerment which can improve attachment to the organization (De Menezes & Kelliher, 2011). Given that engagement is a strong predictor of commitment and lower turnover intentions (Saks, 2006; Salunkhe et al., 2024), remote work may influence loyalty indirectly through its effect on engagement. Employees who benefit from remote work may become more engaged, which can enhance their loyalty. Therefore, organizational engagement is expected to mediate the relationship between remote work and employee loyalty (H5).

Therefore the hypotheses would be as follows:

H1: Autonomy positively influences organizational engagement.

H2: Remote work positively influences organizational engagement.

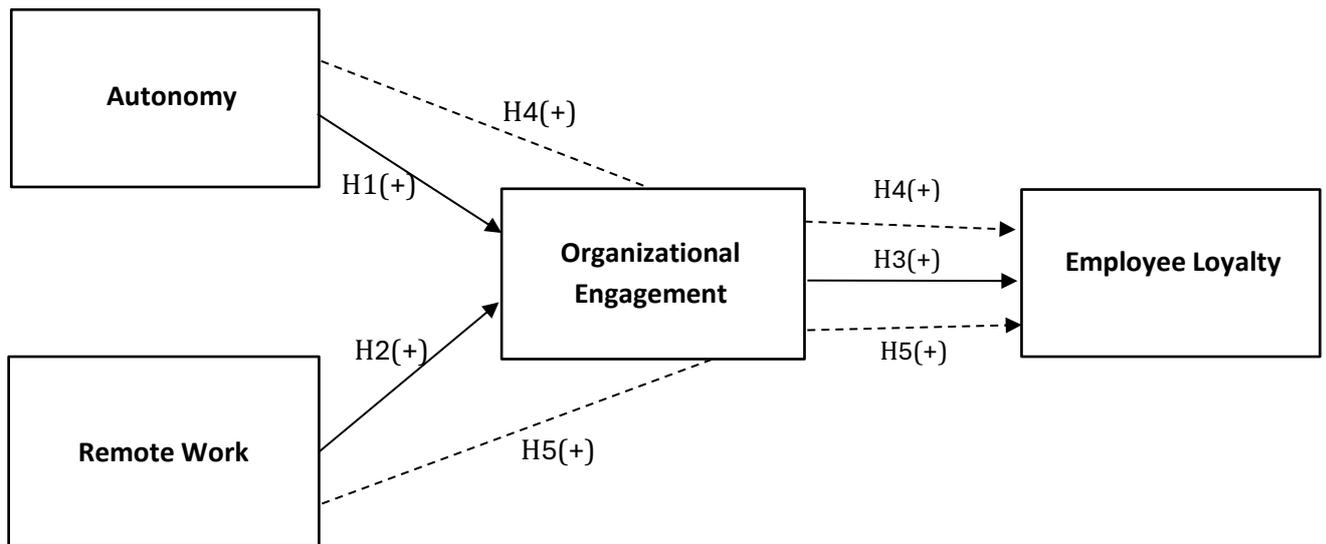
H3: Organizational engagement positively influences employee loyalty.

H4: Organizational engagement mediates the relationship between autonomy and employee loyalty.

H5: Organizational engagement mediates the relationship between remote work and employee loyalty.

Figure 1 shows the conceptual model of this study, showing the hypothesized relationships between the independent variables autonomy and remote work, the mediator organizational engagement and the dependent variable employee loyalty.

Figure 1 *Conceptual model of direct and mediated relationships among autonomy, remote work, organizational engagement and employee loyalty.*



Source: compiled by the author

2.2 Research design

This research will use the survey method, which is a quantitative approach to examine the relationship between autonomy, remote work, and their effects on employee loyalty mediated by organizational engagement among IT professionals.

A non-probability self-selection sampling technique was used for this study. This non-probability method means participants voluntarily chose to take part in the study, which is appropriate for reaching IT professionals actively working in remote environments (Etikan et al., 2016). Participants were recruited through a professional networking platform LinkedIn, IT-related online communities on Facebook and Reddit, and internal workplace platforms such as Slack. Based on the guideline by Hair et al. (2014), the sample size should have 15 to 20 observations per independent variable, meaning that for 10 items across the two independent variables for autonomy and remote work, a sample size of at least 150 to 200 respondents is appropriate.

The survey instrument includes a questionnaire composed of both closed-ended Likert-scale items and demographic questions with free text entry. The survey has 37 items in total, including the demographic questions. These questions focus on assessing key aspects such as autonomy, employee loyalty and organizational engagement. Items measuring autonomy explore the degree to which employees feel empowered to make decisions regarding their work schedules, tasks, and overall workflow. Dependent variable employee loyalty is evaluated based on

established scale validated in prior research Employee Loyalty Scale (Dutta, T., & Dhir, S., 2021). The mediator organizational engagement is measured with the scale developed by Farndale, Beijer, Van Veldhoven, Kelliher, & Hope-Hailey (2014). Whereas independent variables: autonomy and remote work are assessed with items taken from Breugh's Work Autonomy Scale (1985) and remote work items that measure the percentage of remote working among employees from a study by Noonan and Glass (2012).

2.3 Survey instruments and measures

The survey instrument was designed to assess three key constructs in the study: autonomy, remote work, employee loyalty and organizational engagement among IT professionals. Each construct was measured using items adapted from established, validated instruments in academic literature. Below, each construct is described in detail, including its theoretical rationale, source, and relevance to the current study. Respondents were given an introductory statement explaining the study's purpose, confidentiality, and voluntary participation before completing the survey.

2.3.1 Autonomy items

This study uses the established and validated Work Autonomy Scale (1985) developed by James A. Breugh to measure perceived autonomy in the workplace. It consists of three subdimensions: scheduling autonomy, methods autonomy, and criteria autonomy. This provides a more comprehensive assessment of the degree of autonomy employees perceive over how, when, and according to what standards they complete their work, elements that are especially important in remote and flexible work environments. Sentences were modified to improve clarity for an international sample while maintaining the meaning. Additionally, the responses were measured on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). One item was excluded from the original scale; however, reliability analysis indicated satisfactory internal consistency.

Table 1 *Items used in the survey to measure autonomy.*

Dimension	Items
Work Scheduling Autonomy	<ol style="list-style-type: none"> 1. I am allowed to decide how to go about scheduling my work. 2. I am free to decide the order in which I do tasks on the job. 3. I am allowed to determine how long I work on any one task.
Work Method Autonomy	<ol style="list-style-type: none"> 1. I am allowed to decide how to perform my job. 2. I have control over the procedures used in carrying out my work. 3. I can make changes on my own in the way I do my job.
Work Criteria Autonomy	<ol style="list-style-type: none"> 1. I am able to modify how my job is evaluated 2. I am able to influence the setting of job performance standards.

Source: compiled by the author based on Work Autonomy Scale by Breugh (1985).

2.3.2 Remote work items

To assess the degree of remote work among participants, which is an independent variable in this study, two quantitative self-report items were included taken from the study *The Hard Truth About Telecommuting* by Noonan and Glass (2012). These questions ask respondents to indicate: (1) the total number of hours they usually work per week at their job, and (2) the number of those hours typically spent working from home. Both items are open-ended and require a numerical response.

Table 2 *Items used in the survey measuring remote work.*

Item	Question
Total Weekly Hours	How many hours per week do you usually work at your job (total)?
Weekly Remote Hours	Of those hours, how many do you usually work from home?

Source: compiled by the author based on Noonan and Glass (2012).

This allows for the calculation of the percentage of remote work, which can be treated as a continuous variable in the statistical analysis. The continuous element of this variable enables

better analytical flexibility. Together, these two items provide scalable way to measure the degree of remote work. This approach is especially well suited to modern work contexts, where hybrid models are common and remote work is not always binary. These responses were used to calculate a continuous remote work proportion variable. In addition, a categorical item asking respondents to indicate their general work arrangement (fully remote, hybrid, or previously remote/hybrid) was included for descriptive purposes only and was not used in the regression or mediation analyses.

2.3.3 Employee loyalty items

Employee loyalty was measured using thirteen items from Dutta and Dhir’s (2021) Employee Loyalty Scale. Their instrument displays loyalty as a multilayered construct involving affective connection, behavioral intentions, and trust. These dimensions are relevant because loyalty among IT professionals can be highly impacted by work atmosphere, team relationship, and leadership specifically in remote or hybrid work models. Responses were measured on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Table 3 *Items used in the survey measuring employee loyalty.*

Item	Statement
Loyalty 1	Whenever I get a chance to speak in social gatherings, I try to speak positively about my organization.
Loyalty 2	I always look forward to another day at work.
Loyalty 3	I always promote the brand of my organization.
Loyalty 4	I would prefer to recommend the products and services of my organization to my friends.
Loyalty 5	I feel that I own this organization.
Loyalty 6	This organization has given me a lot of things in my life.
Loyalty 7	I often think of leaving the organization. (reverse scored)
Loyalty 8	If I could choose again, I would choose to work for the current organization.
Loyalty 9	It is very rare that I will look for a new job next year.
Loyalty 10	I am not sure whether my teammates will provide the necessary support if I needed it at my workplace. (reverse scored)
Loyalty 11	Management at my firm takes interest to resolve employee grievances up to the extent possible.
Loyalty 12	Most of my colleagues can be relied upon to do what they say.
Loyalty 13	I am sure about the fact that my subordinates get the work done as per the requirements.

Source: compiled by the author based on Dutta and Dhir’s (2021) Employee Loyalty Scale

2.3.4 Organizational engagement items

Organizational engagement was measured using a five-item scale developed by Farndale et al. (2014). Responses were rated on a 7-point Likert scale (1 = Strongly Disagree, 7 = Strongly Agree).

Table 4 *Items used in the survey to measure organizational engagement.*

Item	Statement
OrgEng 1	Being a member of this organisation gives me energy.
OrgEng 2	Being a member of this organisation is very captivating.
OrgEng 3	Overall, I feel very dedicated to this organisation.
OrgEng 4	I enjoy being able to contribute to the aims of this organisation.
OrgEng 5	One of the most exciting things for me is getting involved with things happening in this organisation.

Source: compiled by the author based on Farndale et al. (2014)

2.3.5 Demographic questions

The final section of the questionnaire included demographic items designed to contextualize respondent data compiled by the author. These questions help analyze and explain the background factors that may influence how remote work and autonomy are experienced and how loyalty is created. The respondents were given a space to enter their texts or numerical input.

Table 5 *Demographic questions used in the survey.*

Item	Questions
D1	What is your age?
D2	What is your gender? Answers: 1) Male 2) Female 3) Other
D3	Country of residence
D4	What is your education level?
D5	How many years of experience do you have in the IT field?
D6	What is your position and level?
D7	What is the size of the organization that you are working at?
D8	Sector of your organization (please select the option that best describes your workplace)
D9	Which best describes your current remote work arrangement?

Source: compiled by the author

For example, age may affect how respondents value flexibility or work-life balance, while years of experience in the IT industry can shape how employees assess growth opportunities, autonomy particularly in relation to career stage. Education level and role seniority can also shape expectations, for instance someone early in their career may look for learning and guidance, while someone more senior may want independence and autonomy.

Country of residence also adds useful information, since remote-work expectations can differ across different cultures and countries. Employees in different regions may have different perceptions of flexibility, work-life balance which can affect loyalty. Sector matters for similar reasons. IT specialists working in finance, gaming, telecommunications, or consulting may have different work cultures, security rules, or loyalty levels. These differences can influence how autonomy is perceived, how remote work is organized, and how strongly employees identify with the organization.

Finally, current remote work status ensures that the sample includes individuals with actual experience with remote or hybrid work conditions, making the analysis of remote work benefits and challenges more valid.

These demographic variables not only add depth to the primary constructs but also allow for comparisons across subgroups, contributing to deeper insights and potential recommendations for practice.

2.4 Data collection and sampling

Data was collected using the online survey platform Google Forms, suitable for reaching IT professionals who already work in virtual environments, in fully remote work or hybrid forms. The survey was distributed via professional networking platforms, industry-specific forums, and company communication channels to reach enough respondents. Colleagues and personal contacts in the IT field were also invited to participate and encouraged to share the survey link with their networks. The study originally aimed to reach respondents from European countries. In practice, most responses came from Lithuania and Germany. This is still consistent with the goal of examining remote work in a European context.

The first page of the survey includes an informed consent statement explaining the study's purpose, voluntary nature, confidentiality, and estimated time for completing (5-7 minutes). The questionnaire is structured in five parts: (a) autonomy, (b) remote work, (c) organizational

engagement, and (d) employee loyalty and a final section (d) that collects demographic data such as age, gender, years of IT experience, and organization size.

3. DATA ANALYSIS

The collected data was analyzed using the statistical software SPSS to examine the relationships between the independent variables (autonomy and remote work), the mediator (organizational engagement), and the dependent variable (employee loyalty). Prior to hypothesis testing, the dataset was carefully screened for accuracy, missing values, and correct coding of measurement items. Some answers were eliminated due to not answering most of the questions, or some responses from employees who do not have any remote or hybrid work experiences. Negative statements were reverse coded. After data cleaning and scale coding, the remaining constructs were prepared for analysis. Reverse-coded items within the employee loyalty scale were recoded to align them with the direction of the other items.

Data analysis was carried out using SPSS. First, the demographic data were examined using descriptive statistics (frequencies, means, and percentages) to have a clear understanding of the sample in terms of age, gender, work arrangement, country, sector, and organizational size. Composite scores were then created for autonomy, organizational engagement, employee loyalty, and remote work. These were then analysed using descriptive statistics, skewness and kurtosis values, and reliability coefficients. After describing the sample, descriptive statistics were calculated for all main variables in the study to understand general trends and response distributions. The latent variables were then assessed by examining internal consistency and reliability indicators (Cronbach's alpha).

After receiving satisfactory reliability, the final stage of analysis tested the proposed relationships between variables. This was done through regression analysis using the Hayes PROCESS macro, which makes it possible to examine direct and indirect effects in the model. This allowed the study to test how remote work and autonomy were linked to employee loyalty, and whether engagement acted as a mediating variable in these relationships.

The empirical results presented in this chapter are integrated with the theoretical framework outlined earlier and compared with findings from previous research. This approach enables the meaningful interpretation of the results within the broader context of organizational engagement, remote work dynamics, and employee attitudes in the IT sector. Furthermore, the chapter highlights the practical implications of the findings for organizations seeking to strengthen engagement and loyalty in increasingly flexible and digital work environments.

3.1 Demographic Characteristics of the Sample

The demographic information collected through the survey was first processed and summarized in SPSS. Basic descriptive statistics (frequencies, percentages, and mean values where applicable) were used to provide a clear overview of the sample and identify general patterns among respondents. This step helped confirm the characteristics of the group before moving into the analysis of the main study variables. The table below presents a concise summary of the demographic results.

Table 6 *Demographics characteristics*

Variable	Category	n	%
Gender	Male	126	68.5%
	Female	57	31.0%
	Other / Prefer not to say	1	0.5%
Age Group	20–29	57	31.0%
	30–39	78	42.4%
	40–49	35	19.0%
	50–59	11	6.0%
	60+	3	1.6%
Years of IT Experience	1–5 years	58	31.7%
	6–10 years	47	25.7%
	11–15 years	27	14.8%
	16–20 years	16	8.7%
	21+ years	35	19.1%
Country of Residence	Lithuania	115	62.5%
	Germany	44	23.9%
	Other (17 countries)	25	13.6%
Education Level	High School	5	2.7%
	Bachelor’s Degree	141	76.6%
	Master’s Degree	30	16.3%
	PhD	8	4.3%
Job Role	Entry-level	2	1.1%
	Specialist / Operational	137	74.5%
	Mid-level developer	1	0.5%

	Middle-level manager	36	19.6%
	Director / Head	5	2.7%
	Senior developer / specialist	1	0.5%
	Contractor / Consultant	1	0.5%
	Other	1	0.5%
Organization Size	1–49 employees	37	20.1%
	50–249 employees	49	26.6%
	250+ employees	98	53.3%

Industry Sector	IT / Software	112	60.9%
	Finance	25	13.6%
	Manufacturing	11	6.0%
	Healthcare	5	2.7%
	Telecommunications	10	5.4%
	Government	3	1.6%
	Education	8	4.3%
	Media / Entertainment	4	2.2%
	Non-profit	2	1.1%
	Other / AECO / Facilities	4	2.2%
Remote Work Arrangement	Fully remote	40	21.7%
	Hybrid	128	69.6%
	Previously remote / hybrid	16	8.7%

Source: compiled by the author according to research data

A total of 184 respondents participated in the study. The sample consisted of 68.5% male and 31% female respondents, which shows in the technology industry male representation is still dominant. Although gender was not a focal variable in the study, the imbalance is worth noting.

In terms of age, the majority of respondents were between 30–39 years (42.4%), followed by the 20–29 group (31%). This indicates that the sample primarily represents early and mid-career professionals who are typically more open to remote work, and sensitive to autonomy-related workplace conditions. Smaller proportions belonged to older age brackets (40–49: 19%; 50–59: 6%; 60+: 1.6%), which suggests that younger employees are more represented in hybrid and remote IT roles.

Regarding country of residence, most participants were from Lithuania (62.5%) and Germany (23.9%), with the remaining 13.6% representing 17 other countries. This reflects the international nature of IT work and shows that remote and hybrid arrangements can enable international employment.

The sample was highly educated: 76.6% held a Bachelor's degree, 16.3% a Master's degree, and 4.3% a PhD, with only 2.7% having a high school level education. This educational profile is typical in the IT industry where special qualifications are common and needed in most cases.

Work experience was distributed across several ranges, with 31.7% having 1–5 years of experience and 25.7% having 6–10 years. A notable 19.1% had over 21 years of experience, suggesting a mix of junior and highly experienced professionals within the sample. This diversity increases the robustness of the findings, as autonomy, engagement, and loyalty may manifest differently at different career stages.

In terms of job role, 74.5% identified as specialists or operational employees, while 19.6% were middle-level managers. Only a small proportion were senior managers or directors (3.2%). This distribution indicates that the data largely represent employees rather than executives, which is consistent with the study's interest in day-to-day work autonomy.

Organizational size was balanced, with 53.3% working in large organisations (250+ employees), 26.6% in medium-sized (50–249), and 20.1% in small companies (1–49).

Industry representation was dominated by IT and software (60.9%), followed by finance (13.6%) and manufacturing (6%). The inclusion of other sectors (healthcare, telecommunications, education, government) adds diversity but does not affect the study's focus because all respondents worked in IT roles.

Finally, remote work arrangements showed that most respondents were working in a hybrid model (69.6%), with 21.7% fully remote and 8.7% who previously worked remotely. This confirms that remote and hybrid work are dominant in the IT sector.

3.2 Item-level descriptive statistics analysis

Item-level descriptive statistics were examined to understand how respondents answered each statement within the autonomy, loyalty, and organizational engagement scales. The results included mean values, standard deviations, skewness, and kurtosis for all items, allowing for a

detailed evaluation of item behaviour and the overall distribution of responses. Skewness and kurtosis were checked to see whether the data were normally distributed. Values within ± 2 for skewness and ± 7 for kurtosis are considered acceptable (Curran et al., 1996), meaning the data can still be used for statistical analysis even if they are not perfectly normal. Due to different Likert scale ranges used across the measurement instruments, mean values are interpreted within constructs rather than compared directly across constructs.

Table 7 *Item-level descriptive statistics analysis*

Item	Mean	SD	Skewness	Kurtosis
I am allowed to decide how to go about scheduling my work.	3.84	0.89	-0.582	0.156
I am free to decide the order in which I do tasks on the job.	3.83	0.92	-0.600	0.009
I am allowed to determine how long I work on any one task.	3.91	0.94	-0.602	-0.327
I am allowed to decide how to perform my job.	3.94	0.87	-0.820	0.896
I have control over the procedures used in carrying out my work.	3.77	0.90	-0.377	-0.592
I can make changes on my own in the way I do my job.	3.83	0.88	-0.519	-0.120
I am able to modify how my job is evaluated.	3.50	1.02	-0.355	-0.503
I am able to influence the setting of job performance standards.	3.62	1.02	-0.716	0.184
I would prefer to recommend the products and services of my organization to my friends.	3.84	0.96	-0.989	1.157
I always look forward to another day at work.	3.71	1.00	-0.531	-0.078
I always promote the brand of my organization.	3.73	0.99	-0.769	0.214
I feel that I own this organization.	3.32	1.15	-0.474	-0.471
This organization has given me a lot of things in my life.	3.79	0.96	-0.864	0.721
(R) I often think of leaving the organization.	3.51	1.14	-0.590	-0.452

If I could choose again, I would choose to work for the current organization.	3.90	0.88	-0.612	-0.002
(R) I am not sure whether my teammates will provide necessary support if needed.	2.68	1.20	0.344	-0.840
I am sure that my subordinates get the work done as required.	3.69	0.90	-0.544	-0.010
(R) It is very rare that I will look for a new job next year.	2.40	1.10	0.536	-0.513
Whenever I get a chance to speak in social gatherings, I speak positively about my organization.	3.83	0.92	-0.753	0.399
Most of my colleagues can be relied upon to do what they say.	3.89	0.83	-0.810	1.207
Management takes interest to resolve employee grievances.	3.73	0.97	-0.761	0.441
Being a member of this organisation gives me energy.	5.06	1.39	-0.939	0.473
Being a member of this organisation is very captivating.	4.98	1.44	-0.778	0.284
Overall, I feel very dedicated to this organisation.	4.94	1.50	-0.805	0.171
I enjoy being able to contribute to the aims of this organisation.	5.08	1.44	-0.839	0.453
One of the most exciting things for me is being involved with things happening in this organisation.	5.06	1.49	-0.801	0.252
REM	0.70	0.24	-0.131	4.013

Note: REM refers to remote work.

Source: compiled by the author according to research data

Across the eight autonomy items, mean scores ranged from approximately 3.50 to 3.95, on a 5-point Likert scale, this means relatively high perceived autonomy. Items reflecting decision-making freedom (e.g., “I am allowed to decide how to perform my job”) showed the highest means, suggesting that employees experience considerable flexibility in task execution. Items

involving influence over evaluation and performance standards had slightly lower means (around 3.50–3.62), implying that while task autonomy is strong, structural autonomy (evaluation, procedures) may be more constrained in IT organisations.

Skewness values were generally negative (between -0.82 and -0.35), indicating that most respondents selected the higher end of the scale. Kurtosis values ranged from -0.59 to 0.90 , well within acceptable limits, showing normal distribution.

Loyalty items showed much more variation in mean values (approx. $M = 2.40$ to 3.90), showing a more complex pattern compared with autonomy.

- Items reflecting brand promotion and positive communication (e.g., “I always promote the brand of my organization”; “I try to speak positively about my organization”) had means around 3.73–3.84, suggesting behavioural loyalty.
- Items reflecting affective loyalty (e.g., “This organization has given me a lot of things in my life”) showed slightly higher means.
- Reverse-coded items, such as “I often think of leaving the organization” and “It is very rare that I will look for a new job next year,” had some of the lower means ($M = 3.51$ and $M = 2.40$ respectively), indicating that job hopping intentions are not rare among IT workers, a known trend in high-demand labour markets.

Skewness values for loyalty items ranged from -0.989 to $+0.536$, indicating mixed response tendencies. Negative skewness in most items reflects moderate agreement, while positive skewness in reverse-coded items indicates disagreement. Kurtosis values were again within acceptable limits, showing that item distributions do not go far from normality.

This variation suggests that while employees may speak positively about their organization, commitment to long-term retention is weaker, a finding consistent with high turnover rates in the IT sector.

Engagement items displayed some of the highest mean scores in the dataset ($M \approx 4.94$ – 5.09), indicating strong emotional and motivational investment in the organization. Items such as “Being a member of this organisation gives me energy” and “I enjoy being able to contribute to the aims of this organisation” showed particularly high levels.

Standard deviations ranged from 1.39 to 1.50, showing wider variability compared with autonomy items. This may reflect differing engagement experiences depending on job role, team

dynamics, or leadership conditions. All skewness values were negative (approximately -0.78 to -0.94), meaning respondents tended to choose the upper scale points.

These results suggest that despite moderate loyalty scores, organizational engagement among IT employees is strong, which aligns with research showing that engagement can remain high even in fast-moving labour markets where switching jobs is common.

Remote work had a mean of 0.706, confirming that most participants worked in a hybrid or fully remote arrangement. Its kurtosis value (4.013) indicates a heightened distribution, meaning most responses showed high levels of remote work.

3.3 Latent variables and reliability analysis

The descriptive statistics for the four latent variables Autonomy (AUT), Engagement (ENG), Loyalty (LOY), and Remote Work (REM) and the Cronbach Alpha for each construct are presented in Table 8.

Table 8 *Latent variables statistics and reliability*

Construct	Number of Items	Mean	SD	Skewness	Kurtosis	Cronbach's α
Remote Work	2	0.70	0.24	-0.13	4.01	–
Autonomy (Scale 1-5)	8	3.78	0.57	-1.02	2.35	.765
Organizational Engagement (Scale 1-7)	5	5.02	1.15	-0.99	0.96	.852
Employee Loyalty (Scale 1-5)	13	3.54	0.42	-1.13	2.39	.756

The skewness and kurtosis values presented in Table 8 are within acceptable ranges since values within ± 2 for skewness and ± 7 for kurtosis are considered acceptable (Curran et al., 1996).

Source: compiled by the author based on the research data

Reliability analysis was conducted to assess the internal consistency of the measurement scales used in the study. Cronbach's alpha values were examined for the multi-item constructs: Autonomy (AUT), Organizational Engagement (ENG), Employee Loyalty (LOY). The Autonomy (AUT) scale has acceptable internal consistency with a Cronbach's alpha of $\alpha = .765$, indicating that the eight items consistently measure the underlying construct. This level of reliability is

consistent with previous research using Breugh's (1985) autonomy dimensions and confirms that autonomy is measured reliably.

The Organizational Engagement (ENG) scale showed the highest reliability among the constructs ($\alpha = .852$), reflecting strong internal coherence between its five items. The Employee Loyalty (LOY) scale also demonstrated acceptable reliability with $\alpha = .756$. Although slightly lower than engagement, this value still exceeds the commonly accepted threshold of .70. Significantly, three loyalty items were reverse coded prior to analysis. Reverse-coded items often reduce internal consistency slightly because respondents may interpret them differently from positively structured sentences. Despite this, the overall reliability showed that the loyalty scale is acceptable for further analysis.

Taken together, the reliability results show that the survey instruments used in the study display acceptable to strong internal consistency.

Composite scores were produced for each construct by averaging their items after reverse coding where necessary. The Autonomy (AUT) variable had a mean of 3.78 (SD = 0.58), indicating moderately high perceived autonomy among IT employees. This is aligned with expectations that IT professionals typically have a degree of independence in selecting tasks and executing them. The negative skewness (-1.023) suggests that many respondents reported autonomy levels above the middle.

Organizational Engagement (ENG) reported one of the highest mean values (M = 5.03, SD = 1.16), reflecting strong emotional and motivational connection to the organization. Negative skewness (-0.985) again indicates that employees generally showed high engagement.

Employee Loyalty (LOY) showed a mean (M = 3.55, SD = 0.43), lower than both autonomy and engagement. The negative skewness (-1.127) shows that most employees rated loyalty on the higher side, but the relatively lower mean may imply that long-term retention intentions may be less stable which is very consistent with high turnover tendencies in the IT market.

The Remote Work (REM) variable, measured as a single item, had a mean of 0.706, indicating that most respondents worked mostly in hybrid or remote models. The remote work item only had three possible responses, so the distribution is naturally peaked. The high kurtosis value of 4.013 shows the fact that most respondents selected the hybrid option.

Overall, the latent variable descriptive statistics show a workforce with high engagement, moderately high autonomy, and mid-level loyalty, in the context of a hybrid/remote working environment.

3.4 Mediation analysis

Regression and mediation analyses were conducted to examine the relationships between autonomy, remote work, organizational engagement, and employee loyalty. The analysis was done by using Hayes' PROCESS macro (Model 4) which is commonly used to test mediation effects.

Two separate mediation models were tested. In the first model, autonomy was included as the independent variable, organizational engagement as the mediator, and employee loyalty as the dependent variable. In the second model, remote work was included as the independent variable, with the same mediator and outcome variables.

Table 9 Regression results for direct effects of autonomy, organizational engagement, and employee loyalty

Hx	Relationship	R ²	Standardized β	t	p	95% Confidence Interval
H1	AUT → ENG	0.295	0.543	8.719	< .001	[0.839, 1.330]
	AUT → LOY	0.552	0.303	5.120	< .001	[0.138, 0.312]
H3	ENG → LOY	0.552	0.534	9.013	< .001	[0.155, 0.242]

N = 184. REM = remote work; ENG = organizational engagement; LOY = employee loyalty. β = standardized regression coefficient. Confidence intervals are reported for unstandardized coefficients.

Source: Compiled by author based on the research data

The regression results presented in Table 9 show that autonomy has a statistically significant and strong positive effect on organizational engagement ($\beta = 0.543$, $t = 8.719$, $p < .001$). This indicates that employees who experience higher levels of autonomy report higher levels of engagement with their organization. Thus, Hypothesis 1 is supported.

The results further show that autonomy has a statistically significant positive effect on employee loyalty ($\beta = 0.303$, $t = 5.120$, $p < .001$). This suggests that greater autonomy is associated with higher levels of employee loyalty. In addition, organizational engagement has a strong and statistically significant positive effect on employee loyalty ($\beta = 0.534$, $t = 9.013$, $p < .001$), indicating that more engaged employees are more likely to feel loyal to their organization.

The mediation analysis results for autonomy, organizational engagement, and employee loyalty are presented in Table 10. The total effect of autonomy on employee loyalty is positive and statistically significant ($\beta = 0.593$, $p < .001$), indicating that autonomy is a strong overall predictor of employee loyalty. When organizational engagement is included in the model, the direct effect of autonomy on employee loyalty remains statistically significant ($\beta = 0.303$, $p < .001$).

Table 10 Mediation analysis results (Total, Direct, and Indirect Effects) for autonomy, organizational engagement, and employee loyalty

Hx	Effect	Effect	SE	p	LLCI	ULCI
H4	Total effect (AUT → LOY)	0.440	0.044	< .001	0.353	0.527
H4	Direct effect (AUT → LOY)	0.225	0.044	< .001	0.138	0.312
H4	Indirect effect (AUT → ENG → LOY)	0.215	0.037	—	0.140	0.284

N = 184. REM = remote work; ENG = organizational engagement; LOY = employee loyalty. β = standardized regression coefficient. Confidence intervals are reported for unstandardized coefficients.

Source: Compiled by author based on the research data

The indirect effect of autonomy on employee loyalty through organizational engagement is also statistically significant, as the confidence interval does not include zero (indirect effect = 0.215). This indicates that organizational engagement partially mediates the relationship between autonomy and employee loyalty. This confirms that organizational engagement mediates the relationship between autonomy and loyalty. In practical terms, this means that autonomy increases employee loyalty partly because it increases employees' organizational engagement.

The regression results presented in Table 11 show that remote work has a statistically significant negative effect on organizational engagement ($\beta = -0.160$, $t = -2.191$, $p = .030$). This suggests that higher levels of remote work are associated with lower levels of organizational engagement. However, the direct effect of remote work on employee loyalty is not statistically significant ($\beta = 0.070$, $t = 1.314$, $p = .191$), indicating that remote work alone does not directly predict employee loyalty. This indicates that remote work does not directly influence employee loyalty once engagement is taken into account. Instead, engagement seems to be the key factor explaining loyalty outcomes.

Table 11 *Regression results for direct effects of remote work, organizational engagement, and employee loyalty*

Hx	Relationship	R ²	Standardized β	t	p	95% Confidence Interval
—	REM → ENG	0.026	-0.160	-2.191	.030	[-1.414, -0.074]
—	REM → LOY	0.492	0.070	1.314	.191	[-0.061, 0.304]
H3	ENG → LOY	0.492	0.710	13.225	< .001	[0.224, 0.303]

N = 184. REM = remote work; ENG = organizational engagement; LOY = employee loyalty. β = standardized regression coefficient. Confidence intervals are reported for unstandardized coefficients.

Source: Compiled by author based on the research data

Consistent with previous results, organizational engagement has a strong and statistically significant positive effect on employee loyalty ($\beta = 0.710$, $t = 13.225$, $p < .001$), reaffirming its central role in explaining loyalty outcomes.

The mediation analysis results for remote work, organizational engagement, and employee loyalty are presented in Table 12. The total effect of remote work on employee loyalty is not statistically significant ($\beta = -0.043$, $p = .560$). This suggests that remote work by itself does not determine if employees feel loyal to their organization. The direct effect remains non-significant when organizational engagement is included in the model ($\beta = 0.070$, $p = .191$).

Table 12 Mediation analysis results (Total, Direct, and Indirect Effects) for remote work, organizational engagement, and employee loyalty

Hx	Effect	Effect	SE	p	LLCI	ULCI
H5	Total effect (REM → LOY)	-0.043	0.128	.560	-0.326	0.177
H5	Direct effect (REM → LOY)	0.070	0.092	.191	-0.061	0.304
H5	Indirect effect (REM → ENG → LOY)	-0.196	0.096	—	-0.388	-0.008

Note. N = 184. REM = remote work; ENG = organizational engagement; LOY = employee loyalty. Bootstrap confidence intervals based on 5,000 samples. N = 184.

Source: compiled by author based on the research data

Despite the absence of a direct effect, the indirect effect of remote work on employee loyalty through organizational engagement is statistically significant, as the confidence interval does not include zero (indirect effect = -0.196). This indicates that organizational engagement fully mediates the relationship between remote work and employee loyalty. In other words, remote work influences employee loyalty only indirectly by reducing organizational engagement, which in turn lowers loyalty.

3.5 Hypotheses Testing

This section presents the results of hypothesis testing based on the regression and mediation analyses conducted using Hayes' PROCESS macro (Model 4). Hypotheses were evaluated using standardized regression coefficients (β), significance levels (p values), and bootstrapped confidence intervals for indirect effects. A hypothesis was considered supported when the effect was statistically significant ($p < .05$). In the case of mediation hypotheses, support was established when the bootstrapped confidence interval for the indirect effect did not include zero.

H1: Autonomy positively influences organizational engagement.

The results support H1. Autonomy had a strong and statistically significant positive effect on organizational engagement ($\beta = .543$, $p < .001$). This finding shows that employees who experience higher levels of autonomy tend to report higher engagement with their organization, therefore H1 is supported by the results.

H2: Remote work positively influences organizational engagement.

H2 was not supported. Although remote work significantly predicted organizational engagement, the relationship was negative rather than positive ($\beta = -.160$, $p = .030$). This suggests that higher levels of remote work are associated with slightly lower organizational engagement.

H3: Organizational engagement positively influences employee loyalty.

The results support H3. Organizational engagement showed a strong and statistically significant positive effect on employee loyalty ($\beta = .710$, $p < .001$). This suggests that employees who are more engaged with their organization are more likely to show higher loyalty.

H4: Organizational engagement mediates the relationship between autonomy and employee loyalty.

H4 was supported. The indirect effect of autonomy on employee loyalty through organizational engagement was positive and statistically significant, as the bootstrapped confidence interval did not include zero. This indicates that organizational engagement partially mediates the relationship between autonomy and employee loyalty.

H5: Organizational engagement mediates the relationship between remote work and employee loyalty.

H5 was supported. The results revealed a statistically significant indirect effect of remote work on employee loyalty through organizational engagement. However, the indirect effect was negative, indicating that higher levels of remote work reduce engagement, which in turn reduces employee loyalty. The absence of a significant direct effect suggests full mediation.

3.5 Research results summary and discussion

The aim of this study was to examine the relationships between autonomy, remote work, organizational engagement, and employee loyalty among IT professionals, with a specific focus on the mediating role of organizational engagement. Quantitative data from 184 respondents were analysed using SPSS software, regression and mediation analysis with Hayes' PROCESS macro.

The results show that autonomy has a strong and statistically significant positive effect on organizational engagement ($\beta = .543$, $p < .001$). This indicates that higher levels of autonomy are associated with higher engagement among IT employees. Autonomy was also found to have a significant direct effect on employee loyalty ($\beta = .303$, $p < .001$), as well as a strong total effect on loyalty ($\beta = .593$, $p < .001$). These results confirm that autonomy plays a central role in shaping both employees' emotional connection to the organization and their loyalty.

Mediation analysis further revealed that organizational engagement partially mediates the relationship between autonomy and employee loyalty. The indirect effect of autonomy on loyalty through engagement was positive and statistically significant (standardized indirect effect $\beta = .290$, 95% CI [0.194, 0.375]). This indicates that autonomy increases loyalty both directly and indirectly by increasing organizational engagement.

In contrast, remote work showed a small but statistically significant negative effect on organizational engagement ($\beta = -.160$, $p = .030$). This finding suggests that higher levels of remote work are associated with slightly lower engagement. However, remote work did not have a significant direct effect on employee loyalty ($\beta = .070$, $p = .191$), nor showed a significant total effect on loyalty ($\beta = -.043$, $p = .560$).

Despite the absence of a direct relationship, mediation analysis showed a significant negative indirect effect of remote work on employee loyalty through organizational engagement (standardized indirect effect $\beta = -.114$, 95% CI [-0.219, -0.004]). This result indicates full mediation, meaning that remote work influences employee loyalty only indirectly by affecting engagement. When remote work reduces engagement, employee loyalty decreases as a result.

The results of this study show that autonomy and organizational engagement are the key factors explaining employee loyalty among IT professionals, while remote work plays a secondary and indirect role.

Autonomy was found to have a strong positive effect on organizational engagement and employee loyalty. This indicates that when employees have control over how they perform and organize their work, they are more engaged and more loyal to their organization. The partial mediation effect further suggests that autonomy increases loyalty both directly and through higher engagement. This finding is particularly relevant in the IT sector, where autonomy is closely linked to professional identity, motivation, and organizational trust.

Organizational engagement appears as the strongest predictor of employee loyalty across all models. Employees who feel emotionally and cognitively engaged are significantly more likely to express loyalty, regardless of their work arrangement. This shows that loyalty in modern work environments is mainly shaped by employees' connection to the organization rather than structural designs alone.

Remote work showed a small but negative relationship with organizational engagement and no direct effect on employee loyalty. This suggests that remote work, by itself, does not reduce loyalty, but may slightly weaken organizational engagement depending on other factors. The full

mediation effect indicates that remote work affects loyalty only through its influence on engagement. When engagement is maintained, remote work does not seem to reduce employee loyalty. This aligns with research highlighting the risk of isolation and disengagement when remote work is not sufficiently supported by organizational practices (Wang et al., 2021; Chen, 2024). One possible explanation is that higher levels of remote work may reduce social interaction, informal communication, and emotional connection with the organization, particularly in hybrid and fully remote settings.

Overall, the findings suggest that autonomy and engagement are more important for employee loyalty than flexible work arrangements. Remote work should therefore be supported by organizational engagement practices, while autonomy should be encouraged as a core job design feature in the IT sector.

3.6 Limitations of the study

This study has several limitations that should be considered when interpreting the results.

First, the sample size was relatively small ($N = 184$). Although sufficient for the statistical analyses conducted, a larger sample could increase statistical power and provide more general conclusions of the relationships between the variables.

Second, the geographical distribution of respondents was uneven, with most participants residing in Lithuania and Germany. While this reflects the researcher's access to respondents and the international nature of IT work, it limits the generalizability of the findings to IT professionals in other countries or regions with different conditions and work cultures.

Third, the study used self-reported survey data, which may be subject to common method bias. Respondents' perceptions of autonomy, engagement, and loyalty may not fully reflect actual behaviors or objective practices.

Despite these limitations, the study provides valuable insights into the role of autonomy and organizational engagement in shaping employee loyalty among IT professionals and offers a foundation for future research using larger, more diverse samples.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions:

1. Based on the findings of the study, the conclusion is that autonomy is a strong predictor of both organizational engagement and employee loyalty among IT professionals. When employees experience higher levels of autonomy in their work, they tend to feel more connected to their organization and show stronger loyalty. This indicates that autonomy functions as a key motivational factor in IT work environments.
2. Based on the mediation analysis, the conclusion is that organizational engagement acts as a mechanism through which autonomy influences employee loyalty. Autonomy improves employees' sense of involvement and attachment to the organization, which in turn supports loyalty. This highlights organizational engagement as a link between job characteristics and loyalty outcomes.
3. Based on the results related to remote work, the conclusion is that remote work does not directly affect employee loyalty. Instead, its influence is indirect through organizational engagement. Remote work arrangements may slightly decrease employees' engagement to the organization, if not supported by the engagement practices.
4. Based on the overall model, the conclusion is that organizational engagement emerges as the strongest determinant of employee loyalty in the IT sector. This underscores the strategic importance of fostering organizational engagement in highly flexible and remote-oriented work contexts.

Recommendations:

1. Organizations should increase employees' autonomy over task execution, scheduling and work methods, based on the finding that autonomy had a significant positive effect on organizational engagement and employee loyalty in this study.
2. Organizational engagement should be treated as a key retention factor, based on the findings that it is the strongest and statistically significant predictor of employee loyalty.
3. Remote work should not be viewed as a single driver of employee loyalty, as no significant direct relationship between remote work and loyalty was found.
4. Organizational engagement in remote and hybrid work settings should be actively maintained through work practices, as higher levels of remote work were associated with slightly lower engagement.

5. Managers should support autonomy and maintain organizational engagement in flexible work arrangements, as these constructs show to play an important role in maintaining employee loyalty in the findings of the study.

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**THE EFFECT OF REMOTE WORK AND AUTONOMY ON EMPLOYEE LOYALTY:
THE MEDIATING ROLE OF ORGANIZATIONAL ENGAGEMENT AMONG IT
WORKERS**

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Master thesis

Human Resource Management

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SUMMARY

56 pages, 12 tables, 1 figures, 1 annexes, 110 references.

This Master's thesis examines the impact of autonomy and remote work on employee loyalty, focusing on the mediating role of organizational engagement among information technology (IT) professionals. The expansion of remote and hybrid work models has transformed work design in the IT sector, increasing the importance of autonomy and flexibility while intensifying challenges related to employee retention. As IT organizations continue to face high turnover rates, understanding the mechanisms that maintain employee loyalty has become increasingly important.

The aim of this study is to analyze how autonomy and remote work influence employee loyalty and to determine whether organizational engagement mediates these relationships. The research is grounded in Self-Determination Theory and Social Exchange Theory, which explain how supportive work conditions enhance engagement and encourage employee attitudes such as commitment and loyalty.

A quantitative research design was conducted using a survey-based methodology. Data were collected through an online questionnaire distributed to IT professionals in remote or hybrid work arrangements. A total of 184 responses were collected, mainly from respondents based in Lithuania and Germany. Established and validated measurement scales were used to assess constructs such as autonomy, organizational engagement, and employee loyalty, while remote work was measured as the proportion of working time spent remotely. Data analysis was conducted using SPSS, including descriptive statistics, reliability analysis, and regression-based mediation analysis using the Hayes PROCESS macro.

The results indicate that autonomy is a strong positive predictor of both organizational engagement and employee loyalty. Organizational engagement was found to partially mediate the relationship between autonomy and employee loyalty, suggesting that autonomy contributes to loyalty both directly and indirectly through enhanced engagement. In contrast, remote work showed a small negative effect on organizational engagement and did not have a direct effect on employee loyalty. However, organizational engagement fully mediated the relationship between remote work and employee loyalty, indicating that remote work influences loyalty only through its impact on engagement.

The study contributes to existing literature by highlighting organizational engagement as a key mechanism linking flexible work arrangements and job design to loyalty outcomes in the IT sector. From a practical perspective, the findings suggest that organizations should combine autonomy and remote work policies with engagement-focused practices in order to effectively retain IT professionals.

Keywords: Organizational engagement, job satisfaction, autonomy, remote work, information technology.

NUOTOLINIO DARBO IR AUTONOMIJOS POVEIKIS IT DARBUOTOJŲ LOJALUMUI: MEDIJUOJANTIS ORGANIZACINIO ĮSITRAUKIMO VAIDMUO

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Vilnius, 2026

SANTRAUKA

56 puslapiai, 12 lentelių, 1 paveikslai, 1 priedas, 110 literatūros šaltiniai.

Šiame magistro darbe analizuojamas autonomijos ir nuotolinio darbo poveikis darbuotojų lojalumui, daugiausia dėmesio skiriant organizacinio įsitraukimo kaip tarpinio kintamojo vaidmeniui informacinių technologijų (IT) sektoriuje dirbančių darbuotojų kontekste. Nuotolinio ir hibridinio darbo modelių plėtra reikšmingai pakeitė darbo organizavimą IT sektoriuje, padidindama autonomijos ir lankstumo svarbą bei kartu sustiprindama darbuotojų išlaikymo iššūkius. Kadangi IT organizacijos ir toliau susiduria su dideliais darbuotojų kaitos rodikliais, tampa ypač svarbu suprasti mechanizmus, padedančius palaikyti darbuotojų lojalumą.

Šio tyrimo tikslas išanalizuoti, kaip autonomija ir nuotolinis darbas veikia darbuotojų lojalumą, bei nustatyti, ar organizacinis įsitraukimas tarpininkauja šiuose ryšiuose. Tyrimas grindžiamas Savideterminacijos teorija ir Socialinių mainų teorija, kurios paaiškina, kaip palaikančios darbo sąlygos stiprina darbuotojų įsitraukimą ir skatina tokias nuostatas kaip įsipareigojimas bei lojalumas organizacijai.

Tyrimo taikytas kiekybinis tyrimo dizainas, naudojant apklausos metodą. Duomenys buvo surinkti internetinės anketos pagalba, kuri buvo platinama IT specialistams, dirbantiems nuotoliniu arba hibridiniu darbo režimu. Iš viso surinkti 184 tinkami atsakymai, daugiausia iš respondentų, gyvenančių Lietuvoje ir Vokietijoje. Autonomijai, organizaciniam įsitraukimui ir darbuotojų lojalumui vertinti buvo naudojamos patikrintos ir validuotos matavimo skalės, o nuotolinis darbas buvo matuojamas kaip nuotoliniu būdu dirbamo darbo laiko dalis. Duomenų analizė atlikta naudojant SPSS programinę įrangą, taikant aprašomąją statistiką, patikimumo analizę ir regresinę mediacijos analizę naudojant „Hayes PROCESS“ makrokomandą.

Tyrimo rezultatai rodo, kad autonomija yra stiprus teigiamas organizacinio įsitraukimo ir darbuotojų lojalumo prognozuotojas. Nustatyta, kad organizacinis įsitraukimas iš dalies tarpininkauja autonomijos ir darbuotojų lojalumo ryšiui, o tai leidžia teigti, jog autonomija prisideda prie lojalumo tiek tiesiogiai, tiek netiesiogiai per padidėjusį įsitraukimą. Priešingai, nuotolinis darbas turėjo nedidelį neigiamą poveikį organizaciniam įsitraukimui ir neturėjo tiesioginio poveikio darbuotojų lojalumui. Tačiau organizacinis įsitraukimas visiškai tarpininkavo nuotolinio darbo ir darbuotojų lojalumo ryšiui, o tai rodo, kad nuotolinis darbas daro įtaką lojalumui tik per organizacinį įsitraukimą.

Šis tyrimas prisideda prie mokslinės literatūros, pabrėždamas organizacinio įsitraukimo svarbą kaip pagrindinį mechanizmą, siejantį lanksčias darbo formas ir darbo dizainą su lojalumo rezultatais IT sektoriuje. Praktiniu požiūriu rezultatai rodo, kad organizacijos, siekdamos efektyviai išlaikyti IT specialistus, turėtų derinti autonomijos ir nuotolinio darbo politiką su įsitraukimą skatinančiomis praktikomis.

Raktiniai žodžiai: organizacinis įsitraukimas, autonomija, nuotolinis darbas, darbuotojų lojalumas, informacinės technologijos.

ANNEXES

Annex 1: Survey Instrument and Measures

Dear Participant,

You are invited to take part in a research study examining how autonomy and remote work influence employee loyalty in the IT sector mediated by organizational engagement and job satisfaction. Your responses are **anonymous** and will be used solely for academic purposes. The survey should take about **5-7 minutes** to complete.

Participation is **voluntary**, and you may withdraw at any time. No identifying information will be collected.

This questionnaire is for **IT professionals who currently work remotely or in a hybrid setup, OR who have remote/hybrid experience from a previous role**. If you're not in that group, please don't complete the survey.

Thank you in advance for your valuable input!

Section 1: Autonomy

For the following statements, please indicate the extent to which you agree or disagree.

Please answer the questions based on your **most recent** remote or hybrid work experience.

1 = Strongly Disagree

2 = Disagree

3 = Neither Agree nor Disagree

4 = Agree

5 = Strongly Agree

1. I am allowed to decide how to go about scheduling my work.
2. I am free to decide the order in which I do tasks on the job.
3. I am allowed to determine how long I work on any one task.
4. I am allowed to decide how to perform my job.
5. I have control over the procedures used in carrying out my work.
6. I can make changes on my own in the way I do my job.
7. I am able to modify how my job is evaluated.
8. I am able to influence the setting of job performance standards.

Section 2: Remote Work

Please enter a number only. Please answer the questions based on your **most recent** remote or hybrid work experience.

1. How many hours per week do you usually work at this job?
2. How many hours per week do you usually work at this job at home?

Section 3: Employee Loyalty

For the following statements, please indicate the extent to which you agree or disagree. Please answer the questions based on your **most recent** remote or hybrid work experience.

1 = Strongly Disagree

2 = Disagree

3 = Neither Agree nor Disagree

4 = Agree

5 = Strongly Agree

1. Whenever I get a chance to speak in social gatherings, I try to speak positively about my organization.
2. I always look forward to another day at work.
3. I always promote the brand of my organization.
4. I would prefer to recommend the products and services of my organization to my friends.
5. I feel that I own this organization.
6. This organization has given me a lot of things in my life.
7. I often think of leaving the organization. (R)
8. If I could choose again, I would choose to work for the current organization.
9. It is very rare that I will look for a new job next year
10. I am not sure whether my teammates will provide the necessary support if I needed it at my workplace. (R)
11. Management at my firm takes interest to resolve employee grievances up to the extent possible.
12. Most of my colleagues can be relied upon to do what they say.
13. I am sure about the fact that my subordinates get the work done as per the requirements.

Section 4: Organizational Engagement

For the following statements, please indicate the extent to which you agree or disagree. Please answer the questions based on your **most recent** remote or hybrid work experience.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Somewhat Disagree
- 4 = Neither Agree nor Disagree
- 5 = Somewhat Agree
- 6 = Agree
- 7 = Strongly Agree

- 1. Being a member of this organisation gives me energy.
- 2. Being a member of this organisation is very captivating.
- 3. Overall, I feel very dedicated to this organisation.
- 4. I enjoy being able to contribute to the aims of this organisation.
- 5. One of the most exciting things for me is getting involved with things happening in this organisation.

Section 6: Demographic Questions

Please provide the following background information:

1. What is your age?

_____ years

2. What is your gender?

- a. Male
- b. Female
- c. Other

3. Country of residence:

4. What is your highest level of education?

- a. High School
- b. Bachelor's Degree
- c. Master's Degree
- d. PhD

5. How many years of experience do you have in the IT field?

_____ years

6. What is your current position / level?

- a. Specialist / Operational-level employee
- b. Middle-level manager / Supervisor

- c. Director / Head of Department
- d. Other: _____

7. What is the size of the organization that you are currently working in?

- a. 1–49 employees
- b. 50–249 employees
- c. 250+ employees

8. Sector of your organization (please select the option that best describes your workplace):

- a. Information Technology / Software Development
- b. Financial Services / Banking / Insurance
- c. Manufacturing / Engineering
- d. Education / Research
- e. Healthcare / Pharmaceuticals
- f. Telecommunications
- g. Government / Public Administration
- h. Media / Entertainment
- i. Non-profit
- j. Other: _____

9. Which option best describes your current remote work arrangement?

- a. Fully remote
- b. Hybrid
- c. I previously worked remotely/hybrid, but not anymore

