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Gabija Mėlinskė

MASTER THESIS

VIRTUALIOS LYDERYSTĖS POVEIKIS DARBUOTOJŲ IŠLAIKYMUI LIETUVOJE: KOMANDOS SANGLAUDOS MEDIACINIS VAIDMUO IR PASITIKĖJIMO BEI AUTONOMIJOS MODERACINIS VAIDMUO HIBRIDINĖSE KOMANDOSE	THE IMPACT OF VIRTUAL LEADERSHIP ON EMPLOYEE RETENTION IN LITHUANIA: MEDIATING ROLE OF TEAM COHESION AND MODERATING ROLE OF TRUST AND AUTONOMY IN HYBRID TEAMS

Supervisor dr. Julija Savickė

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INTRODUCTION

Relevance of the Topic. The topic of virtual leadership has been very important and relevant for many years now. The amount and need of virtual leadership especially accelerated during the pandemic COVID-19 years (Greimel et al., 2023). The quantity of employees working from home has increased many times in most of the European countries and even though the COVID-19 pandemic is already over, many workplaces still choose a hybrid or virtual mode of work to this day (Eurostat, 2024). The percentage of Lithuanian workforce working from home has risen from 3% in the year 2015 to 5,4% in the year 2020 (Eurostat, 2024). Therefore, as the amount of employees working from home and in a hybrid setting grew, it is extremely important to find out how virtual leadership is perceived by the employees. The relevance of good virtual leadership is important because a good leader either helps or worsens the wellbeing in the workplace. Many variables make employees resign, however one of the most common ones are trust, relationship with the leader and good communication (Mahadi et al., 2020). These factors are common to all leaders, however virtual leaders have the usual challenges of leadership combined with the difficulty to manage virtual teams from afar. As virtual leaders are not able to observe or take part in spontaneous communication, it tends to be more difficult for them to understand the climate the team is in and jump ahead of conflict in time. Communication, trust and relationships with leaders are one of the most important factors determining the employee retention in a workplace.

Thesis addresses the shift employees have taken from working fully in the office to more often following a more flexible hybrid-working model combining both working from home and the office. Some employees during the COVID-19 pandemic started working fully remote and did not have a chance to meet and get to know their colleagues face-to face. The lack of contact with colleagues during the first months of remote on boarding to a new role led to a reduced connection with their colleagues. The post-pandemic transition to a hybrid work model has transformed the ways in which leaders interact with their employees as the communication between leaders and employees has become more distant and more commonly performed online rather than in person. The research hypothesizes that virtual leadership positively influences employee retention, trust, employee autonomy and team cohesion. In the study of Jarvenpaa & Leidner, scholars have deduced that the lack of physical presence of the leader makes it more difficult to understand the verbal and visual cues that the leader wants to express (1999). To add, it also makes it more difficult for leaders themselves to understand when support for a team is required as the social meetings are more scarce (Malhotra et al., 2007). Due to the formerly stated factors of lack of

verbal cues and physical presence of the leader, the hypothesis that well-established and strong virtual leadership positively affects employee retention is drawn.

The Level of Exploration of the Topic. The COVID-19 pandemic has shown that the possibility to work from home is available for many different professions. Even after the pandemic was over, the tendency to work from home remained and shaped into what is known today as hybrid working, i.e. working both at the office and at home (Hopkins & Kimberly, 2021). As there are many ways in which leadership in person is different from remote leadership, this thesis explores the virtual leadership and its' impact on trust, team cohesion, employee autonomy and retention in hybrid teams. The research of virtual leadership itself is quite extensive (Greimel et al., 2023; Spagnoli et al., 2021; Kelley & Kelloway, 2012) and the research on autonomy (Peetz, 2019; Efimov et al., 2022), trust (Jarvenpaa & Leidner, 1999), team cohesion (Casey-Campbell & Martens, 2009; Grossman et al., 2021). turnover intention (Lazzari et al, 2022; Lyons & Bandura, 2021) employee retention (Mahadi et al., 2020; Kuuyeleh, 2021; Kossivi et al, 2016) is also widely touched upon. Even though research is extensive, there is a research gap in combining the said factors and discovering the influence of virtual leadership on employee retention with the mediating factor of team cohesion and moderating factors of trust and autonomy.

The Novelty of the Master Thesis. The novelty lays in exploring the interplay of factors in trust, autonomy, virtual leadership, employee retention and team cohesion which aligns with current trends and challenges of the workplace. Moreover, by focusing on hybrid teams, the thesis reflects post-pandemic organizational realities and captures a more complex and under-researched work arrangement. Rather than assuming a direct relationship, the study examines how and why virtual leadership influences retention. The thesis addresses a pressing practical problem with direct implications for employers and Human Resources policy in Lithuania. The geographical context provides this research even more novelty as Lithuania is not a country well studied in the global virtual leadership sense.

The Problem of the Master Thesis. How does virtual leadership influence employee retention in hybrid teams, based on trust, team cohesion and autonomy?

The Aim of the Master Thesis. The aim of this thesis is to quantitatively analyse how virtual leadership affects employee's trust, autonomy, team cohesion and retention.

The Objectives of the Master Thesis. To achieve the aim, the following research objectives have been raised:

1. To analyse the scientific literature and define the concepts of leadership, virtual leadership, trust, team cohesion, autonomy, turnover intention and employee retention.

2. To create the conceptual research model according to the scientific literature between virtual leadership, trust, team cohesion, autonomy and employee retention.

3. To conduct the study based on the research model created and to analyse the hypotheses raised and provide results.

4. To draw conclusions and suggestions from the conducted empirical research.

The Presentation of Research Methods. A quantitative analysis on the impact of virtual leadership in hybrid teams was carried out. The possible mediating role of team cohesion and moderating role of trust and autonomy were calculated by the means of statistical analysis via SPSS. The research sample was calculated in accordance with the previous studies carried out in a similar field of research. More specifically, descriptive statistics were calculated and means, standard deviations, minimum and maximum values with skewness and kurtosis were examined. Then, Cronbach's alpha reliability analysis was carried out and normality tests were made. Furthermore, a simple regression analysis was carried out to examine the direct effect of virtual leadership on employee retention. Subsequently, the mediation analysis was performed using the PROCESS macro Model 4 (Hayes, 2022) to test whether team cohesion mediated the relationship between virtual leadership and employee retention. Then, moderation analysis was carried out using the PROCESS macro Model 1 (Hayes, 2022) to examine whether trust moderated the relationship between virtual leadership and team cohesion, and whether autonomy moderated the relationship between team cohesion and employee retention.

The Description of the Structure of the Master Thesis. The master thesis begins with an introduction to the topic. In this section, the relevance, the level of exploration and the novelty of the chosen topic were introduced. The introduction finished with information about the problem, the aim, the objectives and the methods of the thesis. At the end, the description of the structure of the master thesis was provided. The second section of this master thesis is the literature review. The literature review introduced the concept of leadership followed by information about virtual leadership and hybrid teams. Furthermore, the literature review includes the introductions to the concept of trust, team cohesion, job autonomy, turnover intention and employee retention. The third section of the master thesis illustrates the empirical research methodology. In this section, the introduction of the data and methods used in this research was covered. Next, the empirical results analysis presented the most important empirical research results. After the research results, the conclusions, recommendations study limitations followed. Lastly, the references, summary in Lithuanian and English languages and the Annexes finalised the paper.

1. THEORETICAL ASPECTS OF LEADERSHIP, TRUST, TEAM COHESION, AUTONOMY, TURNOVER INTENTION AND EMPLOYEE RETENTION

1.1 Definition of Leadership

Leadership is a very difficult concept to define. It is similar to words such as democracy, love and peace and there are as many definitions of these words as there are people (Northouse, 2013). Not only the definitions but also the perception of leadership is different among many people. The definition of leadership has changed many times over the course of years. Yet, leadership studies to this day remain mainly concerned about people, more specifically about the traits and motivation people possess (Horner, 1997). Even though leadership is mostly about a single person and their traits to be a good leader, leadership can also be seen as a more uniting concept. It is also believed to be a way of learning and developing together purposefully in a community (Lambert, 2016). Leadership as a concept is important in many parts of life. Great leaders surround us in both our workplaces and everywhere else as they make an impact in politics and life making a huge effect on the world in general (Nye, 2023). In psychology, leadership is portrayed as an "inner motor of leader and increasingly follower traits, states, emotions, and cognitive processing styles" (Fairhurst, 2008, 510). Similarly to Horner's (1997) example, at the centre of this definition lies a person who is a leader with underlying the most important being the cognitive states, emotions and traits.

Leaders can influence the decisions and thoughts of their followers (Fairhurst, 2008). This is true for the leaders in workplaces as well as leaders of countries. A good leader could make such an impact, that they could change a political, social and psychological phenomenon that combines mechanisms of domination, culture and structure (Fairhurst 2008). Such complexity requires very careful and cautious use of their leadership power as it is influential (Spagnoli et al., 2021). In the workplace, both good and poor leadership shows an example, it could turn out to be an enormous benefit but it could also become detrimental to the company's image, wealth and thriving.

Good leadership nowadays is complex. In the globalized world, there are many things to consider. Such as multicultural environment and the employee cultural differences (Schneider & Schröder, 2012). Even though in most countries there generally is constant leadership shift from

the authoritarian and coercive leadership to a more charismatic approach, the cultural differences play a big role. As an example, it is easier for American leaders as they naturally tend to be more charismatic than German leaders (Schneider & Schröder, 2012). That being said, there are many great leaders dispersed in all the countries. Leadership is very diverse and multifaceted, even if there are tendencies towards a more charismatic approach throughout the world, many fall somewhere in between.

As mentioned by authors above, at the core of leadership is a person, a person with great leadership traits. However, some scholars do not distinguish between leadership and management at all (Fairhurst, 2008). This, however, is arguable as other scholars do define leadership as being socially influential, purposeful and one, which helps setting goals. Nowadays, the goal is to be an ethical and responsible leader. The responsible leadership is a term, which emerged as an umbrella concept to rethink leadership in stakeholder theory. It responds to both – existing gaps in leadership theory and the practical challenges facing leadership. It first faces the responsibility, accountability and appropriable moral decision making together with trust. Then, it is both about being accountable for your actions and being answerable for your actions (Pless & Maak, 2011). Therefore, there are many different aspects and views of a good leader, however this oftentimes includes being a part of management as well.

Management is understood as simply focusing on fulfilling the organizational goals and processes (Liphadzi et al., 2017). To add to the differences of leadership and management, management is the science, which helps to both create and control an organization. Management is very important and extremely valuable in the day-to-day daily tasks of business. Whereas leadership on the other hand looks beyond the day to day, it ignites the organization into reaching new heights and sometimes even changing something radical (Johnson, 2014). This paper concentrates on leadership specifically without the research of management.

As previously established, a good leader can contribute positively and help, whereas a poor leader can certainly worsen the existing problems. That is the reason why emotional intelligence is one of the most important qualities in employees and management (Sayeed & Shanker, 2009). Leadership as mentioned is a difficult definition to make and is very broad connected to most areas of life. Leadership is connected to Human Resources (HR) as well. HR as a field is closely connected to leadership, even though the studies of specific HR management practices and contributions of HR to leadership have been overlooked (Gond et al., 2011). This is unfortunate, as responsible leadership practices can hardly be achieved without HR, which helps managerial transformations, motivations and values (Gond et al., 2011). HR as a department helps promote responsible leadership practices and plays a key role in creating an engaged workforce (Gond et al., 2011). The roles of HR and leadership are intertwined and many times the responsibilities in

business are shared (Nehles et al., 2006). Therefore, a good leader at work ought to also collaborate with various other teams and departments.

The leadership research and theories reviewed above depend heavily on the study of motivation, suggesting that leadership is less a specific set of behaviours than it is creating an environment in which people are motivated to produce and move in the direction of the leader (Horner, 1997). Northouse defines leadership as a complex, multi-layered concept (2013). However, first and foremost he defines leadership as a process, then adds the involvement of influence together with the fact leadership occurs in groups and finishes up with leadership involving common goals (Northouse, 2013). To summarize, leadership is considered a process which with the help of an individual influences a group to achieve a common goal. Further in this paper, this particular definition of leadership will be used.

In closing, a great leader has to mind the cross cultural differences, be able to work well with other business units such as HR and be accountable while still being approachable and charismatic. The positively influential leader is the one who develops together with their followers as a community and has high empathy and emotional intelligence.

1.2 Specifics of Virtual Leadership and Hybrid Teams

The introduction of the difficult concept of leadership was covered in the previous section. In this subsection, the virtual leadership definition and virtual leadership's importance in today's digital workplace and world will be introduced.

The COVID – 19 pandemic has changed the world around the globe. The pandemic sent the working force from the office to a home setting. As the shift was sudden but necessary, it required rethinking the offline face-to-face leadership as we know it and accelerating the virtual communication (Greimel et al., 2023). Together with leadership, the global workplace trends are shifting towards a more extensive use of technology. Thus, working and collaborating without the need of physical presence, the understanding and role of leadership has undergone transformation as well. The work relationships sparked several new types of leadership. The leadership types have been written about and discussed extensively in various scholarly articles. Several of the newly introduced types were in many cases the leadership types which were popularly re-introduced. There are several leadership concepts which resurfaced, such as e-leadership (Spagnoli et al., 2021), remote leadership (Kelley & Kelloway, 2012) and virtual leadership (Efimov et al., 2024). Even though studies explain similar concepts, the variety of different terms of leadership are oftentimes difficult to consolidate and distinguish clearly (Caputo et al., 2024). Albeit scholars

have introduced many different concepts over the years, concentration in this paper is directed towards virtual leadership.

This paper uses the definition and ideas of virtual leadership that were introduced by the authors Efimov, Rohwer, Harth and Mache. The scholars argue, that virtual leadership is not a new leadership style, but more of a contextual condition for leadership. This mostly means, that the leader and employees are connected via remote means some of the time (Efimov et al., 2024).

The characteristics of a great virtual leader are comprised of the effective management of both face-to-face and virtual team members. Furthermore, virtual leaders must assure the hybrid work arrangement aligns with the capabilities of employees and that all the work responsibilities are fulfilled both face-to-face and remotely (Caputo et al., 2024). This does not indicate, however that the characteristics of a great leader who only works face-to-face or the one who works remotely are different. As a matter of fact, the leadership strategies that work for leaders based in the office full time are similar to the ones working in a hybrid way.

One of the key differences between a virtual and face-to-face leader is the fact that virtual leaders have difficulty working in different contexts and oftentimes managing the geographical dispersion of teams (Caputo et al., 2024). There are certain traits a good virtual leader shall possess and there are several key competences that virtual leaders need. Some of the most important skills of a virtual leader is relationship building, technical and leadership skills and the ability to defuse frustrations of virtual team members (Roy, 2012). Communication skills are one of the most important ones and they have to be effective via different means of technology such as e-mail, video conferencing and instant messaging (Hasnor, 2024). As the communication in hybrid and remote teams tends to be online, of the most important challenges for managers is to motivate employees to engage in communication amongst themselves without the casual encounters in the office kitchen. As communication is important for team cohesion, it builds trust which in turn improves the performance of the team (Zeuge et al., 2020). To add to the difficulties of virtual leaders, they appear in a setting where it is difficult or impossible to supervise, thus this requires new and adjusted leadership skills (Kerfoot, 2010).

As mentioned above, the COVID-19 has undoubtedly changed the workplace introducing home offices across the world (Efimov et al., 2024). The teams, which typically worked from the office and due to the worldwide pandemic worked from home did not return to the office full time and shifted towards working from home even after the lockdown ended. Together with the same employees, many leaders have also turned from the office-based workplace to hybrid or home-offices. In fact, the newest statistics from the statistical office of the European Union - Eurostat indicate that the percentage of people working from home has risen drastically since a decade ago (see table 1).

Table 1

Percentage of Employed Persons Working from Home (2015–2020)

Country	Year					
	2015	2016	2017	2018	2019	2020
European Union (27)	4.9	4.8	5.1	5.2	5.4	12.1
Belgium	8.7	8.1	7.2	6.9	b	17.2
Denmark	9.0	8.4	b	8.8	b	17.0
Germany	3.3	3.2	4.8	5.0	5.2	13.6
Finland	12.0	11.9	12.3	13.3	14.1	25.1
Ireland	3.7	3.3	5.0	b	7.0	21.5
Italy	3.4	3.3	3.5	3.6	b	12.2
Lithuania	3.0	2.7	2.6	2.5	2.4	5.4

Source: Eurostat, 2024.

As seen in the table above, in many European countries the percentage of employees who are working from home has exponentially risen since the COVID-19 pandemic. Therefore, the leadership of virtual teams and the research of virtual leadership has also become more relevant. Even though the pandemic ended, many employees still work hybrid or from home. The difference of hybrid and remote work, is that hybrid work is a term used to define the way an employee divides the traditional time in the office and working remotely (Hopkins & Bardoel, 2023), whereas remote work means, that the employee mostly works without physically going to the office. Studies have shown that hybrid work is linked to lower attrition rates and improved employee experience scores (Hopkins & Bardoel, 2023). This is especially important, as employee training, onboarding and recruiting are one of the costliest endeavours for a company (Mahadi et al., 2020). Even though employees see hybrid working as a benefit, there are some negative aspects to the hybrid work model as well. Some examples of the detriment of a hybrid-working schedule are the lack of job visibility and social isolation (Hopkins & Bardoel, 2023). Some workers believe that the lack of face-to-face connection might hinder the possibility of promotion and advancement (Hopkins & Figaro, 2021). This is extremely important if an

employee wants to progress in their future career or feel the social benefits of working together with their co-workers in a team. Furthermore, there are some cases of hybrid workers who have struggled to maintain the productivity from home with the increasing need of caregiving and other chores. This is extremely visible in the way women work remotely from home as a lot of times the pressure of keeping up with the housework and childcare in the household entirely depends on the female caregiver (Lockey, 2021). All the drawbacks considered, the advantages commonly outweigh the disadvantages of working from home.

Employees and leaders certainly welcome flexibility in the workplace, however it does pose some challenges for effective and positively inspiring leadership. Some challenges to name a few are the digital communication, high-speed decision making, managing the need for constant change and the need for ever-changing digital skills (Cortellazzo et al., 2019). Possessing all of the needed traits as a leader is difficult and keeping up with the ongoing need of digital skills is challenging. Virtual leadership also comes as a difficulty for leaders, because it requires a more inclusive leadership style. Social skills such as face-to-face communication are naturally scarcer as employees spend more time isolated from the rest of the team and leadership at home. However, by properly managing the lack of social interactions, a leader can establish an adequate workspace (Dilby & Farmanesh, 2023). The remoteness of team members therefore require virtual leaders to make the communication more inclusive in order to avoid team member alienation (Spagnoli et al., 2021). Additionally, leaders tend to lack physical observations of the employees. Accordingly, it becomes more and more difficult to know from afar whether it is the time for teambuilding, a social even or even simply some support when the team is getting sluggish (Malhotra et al., 2007). It is safe to say, that the core of effectiveness of virtual leadership lays similarly in the same way as the traits and effectiveness of a traditional leader who only works at the office. To elaborate, both a traditional and virtual leader must exercise empathy, concern for their team and understanding. Perhaps, the biggest difference in virtual and traditional leaders' positive traits is how the leader portrays the said qualities online. The needed sympathy and care is not any different, however it might be interpreted differently without the help of the verbal and visual cues offline (Kayworth & Leidner, 2002).

Finally, it is evident, that the hybrid workforce is only getting larger and will only keep growing. Virtual leadership skills are vital for a well performing and satisfied workforce.

1.3 Trust in Workplace

As aforementioned in the preceding section above, communication in virtual teams is challenging for various reasons. This poses trouble, as at work, communication highly influences trust in theworkplace and trust is one of the most important and difficult to build virtually (Jarvenpaa & Leidner, 1999).

Trust has been defined many times and in many studies. Various scholars from different fields have also redefined it differently (Johnson et al., 2019). The concept of trust has been argued and analysed in most social sciences including psychology, economics and sociology (Arai, 2009). In all of these social sciences, the definition was undoubtedly different. In fact, some believe there is no point to define or study trust at all. The author Kazuhiro Arai, who is a representative of the economic sciences, concludes that studying trust happens to be worthless as it is not possible that trustworthy people are always trustworthy and untrustworthy people are always untrustworthy (Arai, 2009). Even though the debate about trust, its definitions, and even the need to define or study it are ongoing, there is a need to define it. Trust is the "willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (Mayer et al., 1995, 712). This means, that trust is a willingness to believe in another person or party without the monitoring of a task. Further in the thesis, the preceding definition will be used.

Even though people naturally happen to understand what trust is, it is a complex phenomenon with many levels and factors. Scholars from earlier years have believed trust to be as an either/or where someone either completely trusts or distrusts a person, however this has been found to be untrue as trust can develop, decline and change over time (Russeau et al., 1998). Risk and interdependence are necessary for trust and there are three main phases of trust. The first one is building, this is when trust is formed, the second one is stability where trust simply exists and lastly, the third one is dissolution where trust declines (Russeau et al., 1998). Researchers distinguish two types of trust; the first being interpersonal and another being impersonal. Interpersonal trust is employees' trust in their co-workers and in their immediate manager, whereas impersonal trust is more based on roles, systems and reputations (Vanhala et al., 2016).

In a workplace, trust can be usually divided in three main types. Starting from trust in co-workers, following with trust in supervisors and trust in management. Trust in co-workers is expected to be positively associated with satisfaction and commitment (Cho, 2011). It is lateral as the trust is between colleagues. Trust in supervisors as well as trust in management is a vertical type of trust. It is also considered to be more influential as supervisors and management have more

influence on the employee (Cho, 2011). Trust in management however differs from trust in co-workers and supervisors as it is more institutional rather than relational. Trust in management was found to reduce turnover intention and increase organizational commitment (Albrecht & Travaglione, 2003). Whereas trust in supervisors in the Leader-Member Exchange theory (LMX) is one of the most important building blocks in leader and follower relationships (Omilton-Hodges & Ptacek, 2021). In fact, employees who share high-quality relationships built on trust report higher satisfaction and are more likely to earn a high salary and climb the career ladder quicker (Omilton-Hodges & Ptacek, 2021). Trust in a workplace is developed by ability, benevolence and integrity (Mayer et al., 1995). Fostering organizational trust lays in the works of management and it relies on management's decision making philosophy, action, structures and employee expectations towards mutual benefit (Kumar & Sumitha, 2023). Management can build organizational trust by hiring competitive individuals who are capable of forming positive relationships and have empathy and sensitivity. Trust in peers is directly influenced by trust in management. Trust in colleagues relies on confidence that they can be reliable and they will act ethically and with competence. Trust at immediate supervisor level is built on transparent communication, positivity and commitment towards the team (Kumar & Sumitha, 2023).

As established, trust is one of the most important aspects at work. In fact, it is particularly crucial in virtual teams as it tends to reduce high levels of uncertainty in the global and technological environments (Jarvenpaa & Leidner, 1999). Online trust is necessary and it is important to feel it through actions as it needs to be seen by other members of the team (Gentilin & Madrigal, 2021). Additionally, trust has been generally called the glue of a virtual workplace (Kirkman et al., 2002). So much so, that trust happens to be one of the most important aspects in building and sustaining new relationships between leaders and followers (Greimel et al., 2023). This is especially crucial in hybrid teams as the leaders and followers tend to spend less time together face-to-face. All things considered, workplace trust is key in virtual work environments (Gentilin & Madrigal, 2021).

Trust in itself is highly connected to communication, so communication could either build or destroy the trust between employees and leaders. To add, organizational trust is one of the key ingredients in successful HR practices (Diskienė et al., 2021). Unfortunately, oftentimes it just so happens, that the ambiguity between the communication of the leader and the communication of the company itself is frequently mixed up (Diskienė et al., 2021). The researchers Purvanova and Bono hypothesized that virtual communication which is naturally lacking in auditory and visual aids is considered to be more confusing and more cognitively taxing for employees (Purvanova & Bono, 2009). The confusion and lack of visual and auditory cues poses certain risks as trust at the workplace tends to be built by communicating. Communicational difficulties and lack of time

together at the office does not aid in building trust especially because trust oftentimes has to develop quickly in the virtual teams due to certain online projects which tend to have a timeline and an end date (Jarvenpaa & Leidner, 1999). Overall, in many cases, building trust is pivotal and is deeply connected to communication and ability to work well whilst feeling good at work.

Trust is impactful in many ways, especially in hybrid teams. Trust is layered and consists of trust in management, peers and supervisors. As established previously, virtual leadership poses its own difficulties in communication and building relationships. High level of trust makes an substantial difference in employee retention, it is important to foster teams where trust is high.

1.4 Team Cohesion

The previously mentioned trust and team cohesion are connected. Similarly to trust, team cohesion appears to be one of the most widely discussed and written about topics in the scholarly articles in the field of business (Kozlowski & Chao, 2012). The team cohesion concept has been studied and researched for many years. Correspondingly to trust, the definition of team cohesion is difficult to construe. One might even say that there are as many definitions of team cohesion as there are researchers studying and researching the construct itself (Casey-Campbell & Martens, 2009). Being studied for a long time, the definition naturally changed through the course of many years. However, team cohesion most frequently means a shared attraction and sense of pride among the team together with bonding driven by social activity (Casey-Campbell & Martens, 2009). The preceding definition will be used in this paper.

The virtual team cohesion and communication is rightfully interesting and impactful to research and study, because several studies in the field of team cohesion have found contradicting results. The results of the studies are surprising as it was previously found, that technologies have indeed worsened team cohesion and traditional teams had higher levels of team cohesiveness than virtual teams (1997 Warketin et al., as referenced in Powell et al., 2004). However, contrary to the study by Warketin, other scholars have also found the opposite. Other scholars have found, that virtual teams only begin with lower levels of team cohesion and gradually reach strong cohesion levels the more years the co-workers work together (Chidambaram, 1996; Chidambaram & Bostrom, 1993; Chidambaram et al., 1990-1991; Walther, 1995, as referenced in Powell et al., 2004).

Team cohesion is not only important for the wellbeing of employees but it also greatly influences the team's work performance (Grossman et al., 2021) and it is crucial for businesses to keep the team performance at high levels because of profitability and productivity reasons. One of the examples how team cohesion may influence the productivity is when demographic and

cultural differences are strong within a group, fault lines may emerge splitting the group which negatively impacts team performance (Paul et al., 2016).

Team cohesion is quite multifaceted; it is divided by task cohesion and social cohesion which in turn is divided further. Task cohesion is divided by individual attractions to the group-task and group integration-task. Social cohesion is divided by individual attractions to the group-social and group integration-social (Carron et al., 1985). Task cohesion illustrates unity and togetherness, the feeling around work and goals. To be more precise, individual attractions to the group-task reflects on how much an individual person actually likes being a part of the group task and group integration-task means and shows how strongly the group as a whole feels united and shares common goals and performance. Social cohesion, however means the unity around relationships themselves. To be more exact, individual attractions to the group-social shows how much each individual personally likes the group for social activities such as friendship and other enjoyment. Whereas group integration-social illustrates how strongly the group as a whole feels towards being socially connected and united, this illustrates the team's feelings towards the sense of belonging and togetherness. Additionally, teamwork acts as a primary input to group cohesion (Eys & Beauchamp, 2025). It is not possible to achieve team cohesion alone as people lay at the core of team cohesion.

The researcher Bruce Tuckman has deducted that as a team stays together over a period of time, it changes and develops (1965). He underlines three main issues which determine how the team actually performs. The issues are: content, process and feelings. Content relates to what the team does day to day, process relates to how the team works to achieve their objectives and lastly, feelings show how the team members, colleagues relate to one another (Nestor, 2013). Tuckman also suggested the four stages of team development, he suggested that at each given stage the team changes dramatically and the performance as well as efficiency is influenced and fluid.

The table 2 below summarizes the four stages of team development. The forming stage is the first one, it is followed by the storming stage, the norming stage and finally the performing stage. The forming stage is when the team requires guidance from leadership, the employees tend to be anxious and are still attempting to understand their job at hand. The storming stage is when employees' confidence is growing and they start to turn from management resisting authority. The employees tend to deny the task and look for ways to avoid it. There are concerns in team hierarchy and wishes to express individuality. The next stage is norming. It is when employees wish to be a part of the team, they are open to exchange opinions and they ignore individual differences and work together. Lastly, the performing stage. This stage is when employees show concern in achieving objectives, the processes are already set and the communication is effective, there is a high problem-solving tendency.

Table 2

The Four Stages of Team's Life Cycle

	Forming	**Storming**	**Norming**	**Performing**
Observations	Uncertainty, requiring guidance	Growing confidence, rejecting authority	Need to be a part of the team	Concern with achieving objectives
Content Issues	Attempting to define the job	Resisting the task	Open exchange of opinions on the team's problems	Processes in place, resources allocated
Process Issues	Team looks outside for guidance	Denying of the task, looking for reasons not to do it	The team sets up procedures to deal with the task	High ability to problem solve
Feelings Issues	Anxiety, not sure about their role	Uncertainty and trying to express individuality, concerns in team hierarchy	Ignoring individual differences	Common focus, effective communication

Source: Tuckman, 1965.

Even though mostly there are four stages, the fifth stage was developed later in the research. It is called the adjourning stage. This stage has disengagement between colleagues together with a short feeling of team recognition (Nestor, 2013). There are certain implications of the model and among many, it is studied that some teams may never reach other stages and stay in the forming stage. There is flexibility of the model when it comes to virtual leadership. In virtual teams, the first stage is considered much shorter and it passes through much quicker than in teams which are based only in the office (Nestor, 2013). As teams go through lifecycle changes, team cohesion and teamwork is influenced.

It is understandable, that a complex variable such as cohesion has not been measured consistently across all fields and there have been a vast range of approaches to measure cohesion (Grossman et al., 2021). Team cohesion has been divided up into three sections. The first section being social cohesion, the second being task cohesion and the third being group pride (Beal et al., 2003). At this moment, scholars focus on different combinations of dimensions, as there is no standard, agreed upon approach for conceptualizing and measuring cohesion (Grossman et al., 2021). The lack of unified approach makes it hard to understand the factors and measurements of cohesion and apply it universally.

Higher levels of team cohesion create a positive group climate. Positive group climate in turn enhances the performance, member satisfaction and the unit effectiveness of the team

(Kozlowski & Ilgen, 2006). This all merges with the importance of businesses to keep team cohesion levels high. High levels of team cohesion benefit both the employees and the management, as cohesion in essence is the group resistance to the disruptive forces (Sedrine et al., 2020).

To sum up, team cohesion in virtual teams is extremely important. It not only aids in benefiting the team climate but also additionally helps increase productivity, performance and team satisfaction. Cohesion and teamwork is complex it goes through many ranges and transformations, not only individually, but also as a whole.

1.5 Autonomy at Work

Following the previous section on team cohesion, this section introduces the concept of job autonomy. Job autonomy is generally defined as the "degree to which team members believe that they have freedom to make decisions" (Kirkman et al., 2004, 177). This simply means the ability to decide in a team. It has also been defined as a concept, which investigates to which extent the job allows freedom, independence and discretion to schedule work, make decisions and perform tasks (Federici, 2013).

Generally, the law of development guides an autonomous person, however personal autonomy is still not fully understood (Serdiuk et al., 2018). Scholars divide autonomy into personal and team autonomy. Team autonomy is usually viewed as a positive trait in technological teams and is seen as one raising team efficiency (Wang, 2016). Individual experienced autonomy, or personal autonomy is further divided in task autonomy, learning autonomy and temporal autonomy. Task autonomy is considered to be the freedom to make decisions about the execution of one's work as well as the freedom to choose methods, activities and problem-solving approaches. Learning autonomy reflects the freedom to direct professional development and select their own learning opportunities as well as learning pace. Lastly, temporal autonomy means the employee's freedom to manage their own work schedule and work timing (Ambruster & Huemann, 2025). The experienced autonomy through team or simply team autonomy is divided in process autonomy, prioritization autonomy and governance autonomy. Process autonomy shows and reflects the team's freedom to adapt, modify work and select the methodologies used to achieve project goals. Prioritization autonomy is the authority to make economically relevant decisions about task selection, project needs and such. Lastly, governance autonomy represents the team's ability to set internal rules, norms and guides (Ambruster & Huemann, 2025). Even though the division of personal and team autonomy is evident, the layers of autonomy are intertwined and influencing each other as individual decisions rely on the team and the team

autonomy is managed by individuals. Team autonomy grows and increases together with team learning and one of the key aspects for team autonomy to grow is for individual employees to seek knowledge and be open for learning new innovations (Rashkovits, 2015). In recent years, teams have shifted to a more autonomous way of working rather than a usual manager-led teams model. To reach new goals and fulfil the demands, organizations choose to implement more and more teams, which are self-governing (Zychová, et al., 2023). Autonomous teams consist of autonomous employees.

By definition, an autonomous employee is able to decide a part of their job themselves. They could decide on a job schedule, perform tasks individually and make certain decisions by themselves. This means, that job autonomy is an important part of the workers day and is a daily endeavour, which every person having a job comes by with. Studies have shown, that autonomous and empowered virtual teams were associated with larger customer satisfaction and better process improvement (Kirkman et al., 2004). The impact is not only seen in the lives of employees but also in the satisfaction of customers and process improvement. As working remotely and communicating virtually is prevalent in the usual workplace nowadays, a positive linkage between virtual leadership's relation to mental health, job satisfaction and perception of isolation has been found (2022). This further supports the notion, which represents effective virtual leadership to be associated with less psychological strain, less feelings of stress and less perception of isolation and feelings of loneliness (Efimov et al., 2022). Even though autonomy comes with many benefits and freedom, it also happens to enhance some difficulties. It is argued, that autonomy is relational, which means to obtain autonomy or to give it to someone, is to take it from someone else and it undoubtedly challenges the hierarchy concept (Ravn et al., 2022). Oftentimes management does not want to give employees voice and a change of hierarchy is not always welcomed, however employees tend to desire it anyway. This sometimes poses challenges and requires changes from the management and company. Even though companies give employees autonomy, they often only give autonomy to employees for the sake of improvement of productivity. Usually, when employees decide to challenge the authority of management and gain autonomy in the expense of the management, it becomes clear, that employees have to submit to said management without obtaining any real autonomy (Peetz, 2019). The inability to acquire real autonomy and lack of trust in employees is an extensive deciding factor in people wanting to resign and it influences high employee turnover (Mahadi et al., 2020). Contrastively, the more support employees receive from the management, the more likely they are to feel empowered to perform tasks the way they themselves see fit (Robert & You, 2018).

1.6 Employee Turnover Intention

All of the mentioned variables in previous subchapters are extremely important in employee's wellbeing. They are taking place in keeping an employee in their workplace and making them content or adding onto the pondering to leave their workplace. To better understand why employees choose to leave a workplace, it is important to study turnover intention. In this subchapter, turnover intention will be covered.

Turnover intention is considered to be employee's willingness to leave the company they are working in. It is often used to measure the likelihood of employee leaving the organization (Lazzari et al., 2022). There are different drivers of turnover intention and different conditions are influential in making an employee make their mind about leaving an organization. In scholarly articles and in research, the term turnover intention, instead of turnover, is used because turnover is when the employee is actually already leaving, whereas turnover intention precedes that and it means the employee is thinking about leaving the company (Lyons & Bandura, 2021).

There are several determinants of turnover intention, they are explained via Mobley's turnover intention model (1977). The model claims, that job dissatisfaction leads to think about quitting and then to evaluate the possibility of searching for another job. Consequently, the urge and intention to look for another job might rise and the employee starts looking for new opportunities. A second part of an evaluation emerges, the employee starts comparing new possibilities to the current job that they have now, and it might lead to employee turnover (Lee, 1988). This cycle of employee turnover intention and eventual possible employee turnover is relevant to this day, even though some scholars claim that Mobley's model overemphasizes the need to leave the workplace and actual numbers of employee retention and turnover intention are mismatched (Zheng et al., 2019).

The turnover intention theory claims that the individual's decision to leave the workplace is determined by the meeting of life aspirations, more exactly the professional and personal expectations which could be measured by satisfaction levels (Cosgrave et al., 2018). Many studies have researched the factors which influence turnover intention. Of course, employees choose to leave and seek better opportunities because of a larger salary or other material benefits, however a certain part of employees leave due to non-material, intrapsychic reasons (Oh & Chhinzer, 2021). Amongst many, trust and autonomy have been found to be influential in such a decision (Ramos et al, 2021). Such non-material decisions as trust, autonomy or leadership are extremely important to note because the desire to leave an organization not only may result in the employee leaving but also are detrimental for the organization in other ways. An employee who considers themselves ready to leave to another job opportunity often has reduced motivation, job satisfaction and other

measures (Oleksa-Marewska & Tokar, 2022). Even though there are many studies of turnover intention, this paper will only research employees in Lithuania.

To conclude, turnover intention not only shows the likelihood that the employee will choose another path but it also shows the mood an employee may be in and how this could affect others. That is the reason why understanding and measuring turnover retention not only helps in retaining employees but also aids in understanding where and how the company could improve not only their material but also non-material employee wellbeing tools.

1.7 Employee Retention

In the previous section, the turnover intention was covered. As turnover intention is the likelihood of an employee to leave the organization and the willingness to do so, retention is on the other hand what the company and organization itself can do to keep the employees at work.

Employee retention is certainly one of the key strategies in business, as employees are the most valuable assets of an organization (Kossivi et al., 2016). As keeping employees have become extremely important, companies started believing in improving their employee retention. Scholars are also interested in developing the employee retention strategies since the work generally shifted from manual to a more knowledge driven workforce (Hussein et al., 2021). The employee retention strategy is usually made of many different variables such as a positive working environment, employee involvement, compensation and benefits, management support, teamwork, trainings and development, employee freedom and flexibility as well as employee communication, however the list is not exhaustive (Hussein et al., 2021).

There are many reasons why employees choose to leave the company. Interestingly, the deciding factors are influenced by the employee's age. The most important factor to change workplaces throughout all ages is the amount of base pay, however both trust and relationship with the leaders are also among the top 5 in all age groups (Mahadi et al., 2020). Generally, the good practice for companies is to retain strong performers and replace the weak performers (Sheridan, 1992) as high employee turnover not only has reputational damage but also the burden of high costs to a company (Mahadi et al., 2020).

Employee retention factors are classified into work-related and personal factors (Kuuyelleh, 2021). Companies are not always able to influence the personal factors, however work-related factors are usually controlled by the employer. The work-related factors influencing employee retention include good infrastructure and facilities, adequate HRM practices, quality management and leadership styles, communication and building social relationships (Kuuyelleh, 2021). Working conditions of an employee include both the working physical environment as well

as the community and interpersonal relationships. Employees are more likely to stay in a workplace where there is a strong feeling of a community (Gagné & Howard, 2016) and feeling the sense of community is connected to all of the abovementioned factors described in the literature review. The factors are leadership, trust, cohesion and autonomy and all of them play an enormous part in employee retention as all of them are connected to communication and the feelings of being a part of a community.

1.8 Previous Studies on Virtual Leadership and Employee Retention, Trust, Team Cohesion and Autonomy

As noted in the previous paragraphs, the studies of virtual leadership, employee trust, team cohesion, autonomy and retention are crucial to research. The topics are relevant and researching the link and combination of factors in connection to employee retention would help understand the underlying reasons of employees deciding to leave their jobs. There have been several studies conducted to find the link between factors such as trust and team cohesion in connection with employee retention and turnover rates. The study of the impact of paternal leadership on employee retention during COVID-19 has found that there are links between the paternalistic leadership traits such as empowerment and compassion and the willingness of employees to stay at their jobs. There is a positive effect of the paternalistic leadership on work engagement (Martins et al., 2022), which in turn influences employee retention. Another study has found, that the lack of career progression possibilities tend to be connected to low employee retention. Furthermore, the study has shown that skilled and proactively communicating managers are key to success of virtual teams (Depoo & Hyršlová, 2022). Another result of the same study showed that paying attention and communicating with geographically dispersed employees improve performance and creates social support (Depoo & Hyršlová, 2022). Research carried out to find the link between leadership styles and employee retention has confirmed leadership being one of the major factors for employees making the decision to leave the company (Hauer et al., 2021). To add, another study shows the link between virtual teams and the supervisor influence on turnover rate. The results show that work engagement mediates the relationship between supervisor and work engagement and the role of supervisors and their support decreases the turnover intention (Mosquera & Branco, 2024). Thus, studies show the importance of leadership in employee engagement and turnover rate and researchers have found a link between virtual leadership and factors inducing turnover.

Even though virtual leadership can present challenges in building trust, research finds that trust can be even higher in virtual teams. As trust is a prerequisite in effective working relationships, the building of trust in hybrid teams is ought to be one of the biggest priorities for

organizations and managers (Hughes & Saunders, 2021). As virtual teams tend to lean towards favouring a member-centric leadership style and the autonomous worker, virtual leaders should spend more time in analysing the needs of employees, helping them with career growth and taking as much advantage of face-to-face time as possible (Hughes & Saunders, 2021). Trust is also important in virtual teams as it reduces the psychological distance between remote employees and the leaders (Furumo, 2018).

As established prior in the paper, team cohesion is important in a team's effective work (Grossman et al., 2021). High team cohesion rates show high virtual team's performance rates (Chaudhary & Kaur, 2022). As an effective and productive team is every organization's goal, team cohesion is extremely important to obtain. The effects of high team cohesion in a virtual team are overwhelmingly positive, and both trust and team cohesion tend to influence each other (Paul et al., 2016). High trust influences high team cohesion, which in turn creates a loop of high positive feedback. The positive impact of feedback improves the effectiveness in the team. In a virtual team, both trust and team cohesion work hand in hand creating a positive environment and high productivity as well as great relationships between colleagues.

Effective virtual leadership is measured through the lens of autonomy as for great leaders, it is key to ensure sustainability through resources such as autonomy (Santiago-Torner et al., 2025). Employees with high autonomy show more creativity. It was found that great and ethical virtual leaders who emphasize team's autonomy and self-efficacy show increasing trust between leaders and employees (Santiago-Torner et al., 2025). Thus, autonomy in virtual teams not only itself increases the harmony and even promotes individual innovative achievements, but also improves the trust between supervisor and employee (Santiago-Torner et al., 2025). A leader must find the right amount of flexibility, this leads to them taking initiative in their own hands (Hasnor, 2024). This then helps employees tackle the tasks autonomously; a great virtual leader should manage the flexibility while still maintaining appropriate levels of cohesion, trust and autonomy in the workplace, as they are extremely important for employee retention.

The theoretical part of this paper consisted of the introduction of leadership followed by the ideas on virtual leadership and hybrid teams. Subsequently followed, the paragraphs about trust, team cohesion, employee autonomy, turnover intention and employee retention.

To summarize, the role of team cohesion as a mediator between virtual leadership and employee retention was chosen, because it plays a crucial role in employee wellbeing (Ganotice et al., 2022) and employee wellbeing plays a role in employee retention. Moreover, trust was chosen as a moderator because it usually works as reducer of uncertainty and is called the glue of a virtual workforce (Kirkman et al., 2002) and feeling united in a community and feeling the sense of belonging also plays a role in employee retention. Lastly, autonomy was chosen as a moderator

because it represents freedom the remote and hybrid workers encounter and has many advantages, however it also could induce feelings of loneliness (Efimov et al., 2022).

2. EMPIRICAL RESEARCH METHODOLOGY

2.1 Introduction to Research Methodology

Research problem - How does virtual leadership affect employee trust, team cohesion, autonomy and retention?

Research aim - The aim of this study is to empirically test the relationship between virtual leadership, employee trust, team cohesion, autonomy and retention.

Research objectives:

- To examine the direct impact of virtual leadership on employee retention.

- To empirically test the mediating role of team cohesion in the relationship between virtual leadership and employee retention.

- To test the moderating effect of trust on the relationship between virtual leadership and team cohesion.

- To test the moderating role of autonomy on the relationship between tram cohesion and employee retention.

- Based on the results of hypotheses testing, draw conclusions and practical implications of the role of virtual leadership on employee retention.

Research Hypotheses

In the Master thesis, the following hypotheses were raised:

H1: Virtual leadership positively influences employee retention.

Virtual leadership is influenced by communication, trust and team cohesion (Gentilin & Madrigal, 2021). As virtual leadership has become common since the COVID-19 pandemic worldwide, the hybrid model of working from home is still common to this day. Therefore, the impact of virtual leadership on employee retention is an issue which interests employers as well as researchers, as it is known when employees leave, companies encounter financial losses as well as loss in

productivity due to training a new employee (Muhangi, 2016; Mahadi et al., 2020). There are many benefits of virtual teams, however sometimes people are unsatisfied with the experience of working from home (Robert & You, 2018). Dissatisfaction leads to negative feelings employee, which in turn could lead to employees choosing a different career path and leaving the company.

It is has been established by researchers, that leadership influences employee retention, furthermore research has shown, that management styles and leadership is one of the major factors for employees leaving or staying in the company (Hauer et al., 2021). The findings show, that employees who experienced the supportive leadership were more satisfied, less stressed and showed less signs of intent to leave the company (Hauer et al., 2021). Virtual leadership and employee retention has shown many similarities to the conventional leadership and employee retention findings, however there were some differences noted by researchers Hopkins and Figaro (2021). Scholars have found, that there are indeed signs, that virtual leaders need amplified competences in communication, organizational skills and cognitive ability and that leaders' social interaction with workers on hybrid or virtual teams is a significant predictor of employee retention (Hopkins & Figaro, 2021). To summarize, following the findings of the aforementioned research studies provided in this chapter, it is hypothesized that the relationship between virtual leadership and employee retention is positive.

H2: Team cohesion mediates the relationship between virtual leadership and employee retention.

As established in the preceding paragraph, virtual leadership is certainly important in understanding hybrid teams and the employees' state of mind at work. Virtual leadership has an impact on employee retention, however leadership is not the only factor which influences the mood in a virtual or hybrid team (Hauer et al., 2021). Together with the leaders during a working day, employees also collaborate and communicate with their own team members and that is a part of team cohesion.

In fact, team cohesion is very important for productivity as well as emotional wellbeing and is considered to be one of the six key facets of teamwork quality (Hoegl et al., 2001). It is important for leaders and is oftentimes one of the leadership goals and tasks to foster team cohesion in a workplace (Zeuge et al., 2021). Researchers have used the explorative approach and surveyed both employees and leaders to find out the most important factors for fostering team cohesion. Findings show, that team cohesion considerably influences the feelings of loneliness and belonging in virtual team employees (Zeuge et al., 2021). Therefore, leaders who strive to implement measures, which foster team cohesion in virtual teams positively, influence the

wellbeing of employees and help them overcome such feelings as loneliness and isolation at their workplace. To summarize, virtual leaders can influence team cohesion. Therefore, it is hypothesized that team cohesion does mediate the relationship between virtual leadership and employee retention as it influences the emotional wellbeing and sense of belonging in a team.

H3: Trust moderates the relationship between virtual leadership and team cohesion, such that the relationship is stronger when trust is high.

In connection to the abovementioned team cohesion, trust is an important factor in employees' mood at work every day, in fact, trust could be called the uniting glue of the workplace (Kirkman et al., 2002). The certain level and amount of trust is a necessary component in having positive workplace communication in hybrid and virtual teams (Furumo & Pearson, 2006). Higher amount of trust leads to clearer communication between the team itself as well as leadership.

There is a notion, that trust is more difficult to build in virtual teams as employees tend to lack the interactions in person thus making it difficult to understand and learn different demeanour and affect on others one would learn face-to-face (Furumo & Pearson, 2006). As it is generally more difficult to build trust online, leaders who want to build trust in their hybrid or virtual teams have to take more action to overcome the lack of trust online. Research shows, that leadership styles influence the level of trust in employees and on the other hand, scholars have found that trust itself influences the efficiency of virtual teams (Doghri et al., 2020). As businesses strive to improve productivity and efficiency, leadership in turn aims for higher levels of trust in management as well as the team itself. As higher levels of trust can improve team efficiency, lower levels of trust can do the opposite. Accordingly, it is hypothesized that trust can moderate the relationship between virtual leadership and team cohesion such that the relationship is stronger when trust is high.

H4: Autonomy moderates the relationship between team cohesion and employee retention, such that the relationship is stronger when autonomy is high.

Autonomy at work is the ability to have a sense of volition and the ability to choose which activity to partake in (Liu et al., 2011). The support in workplace autonomy could come through either the leadership or the colleagues at work supporting each other's autonomy. The team members trust in each others' autonomy when the members are reliable in doing their tasks and the autonomy grows faster when the tasks are done in-person (Lakhmani et al., 2022). This means, that relationship building in autonomous teams are easier face-to-face rather than in hybrid or virtual

teams. One of the most commonly discussed about benefits of working remotely is the ability to schedule the work and control the structure of the working day (Wheatley et al., 2021). This does add to the feeling of increased person autonomy working from home.

It is important to note, that studies have shown the positive relation between increased team autonomy and increased job satisfaction, which in turn helps with employees' retention (Liu et al., 2011; Worth & Brande, 2020). Moreover, enhanced autonomy in teams result in team effectiveness and show positive relations between team autonomy and social cohesion, as well as team trust (Ryu et al., 2021). Therefore, in this research paper it is hypothesized that autonomy moderates the relationship between team cohesion and employee retention, such that the relationship is stronger when autonomy is high.

2.2. Research Model

The research model used in this study is based on the moderated mediation model where team personality traits (openness to experience and agreeableness) moderated the indirect effect of team feedback and guided reflection intervention through team cohesion, using a moderated mediation model (Zornoza et al., 2018). Similarly, in another research article, team cohesion and team openness had the direct impact on team effectiveness and IM experience, authors have tested the moderating role on team cohesion and team openness (Carlson et al., 2013). The figure 1 below illustrates the research model used in this study.

Figure 1

Research Model
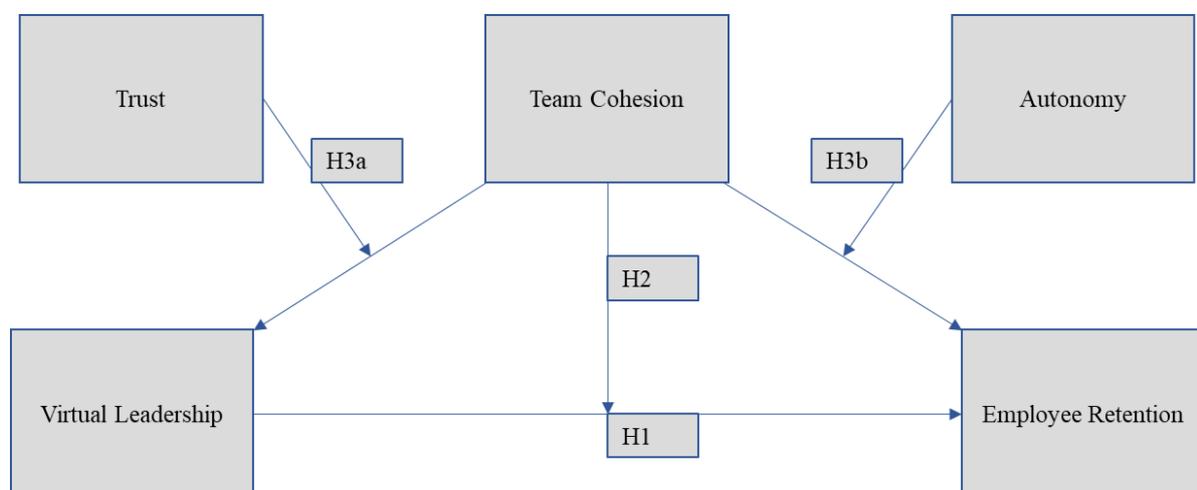
Source: Author.

As seen in the figure 1 above, it is hypothesized that virtual leadership has an effect on employee retention. In turn, team cohesion mediates the relationship between virtual leadership and employee retention. Finally, trust moderates the relationship between virtual leadership and team cohesion and employee autonomy moderates the relationship between team cohesion and employee retention. In this case, independent variable is virtual leadership, dependent variable is employee retention and the mediating variable would is team cohesion. Moderators are trust and autonomy.

2.3 Population and Sampling

The study is meant to determine the impact of virtual leadership on employee retention in Lithuania. The needed data was gathered through a cross-sectional survey designed for employees from various organizational contexts. The respondents are employees that work in a hybrid working arrangement and have a virtual leader, experience virtual leadership. The questionnaire used Likert scales from 1-5 and from 1-7.

The population of the study is hybrid workers employed in Lithuania. As it is difficult to deduce how many people in the workforce work in hybrid teams in Lithuania, a literature analysis together with calculations is used to determine the sample size of the study. According to the scholar Roscoe (1975), in most behavioural studies the sample size from 30 to 500 respondents is sufficient (Memon et al., 2020). Whereas another scholar Kline (2005) suggests that a sample size of 100 is considered small, a sample of 100 to 200 is medium and over 200 is large (Memon et al., 2020).

To determine the sampling size of the study, several similar studies have been chosen and the average amount of the sample size has been calculated and depicted in the table 3 below.

Table 3

Sample Sizes of Comparable Studies

Authors and year	Paper Title	Sample Size
Dilby & Farmanesh, 2023	*Exploring the impact of virtual leadership on job satisfaction in the post-COVID-19 era: The mediating role of work–life balance and trust in leaders*	196
Hopkins & Figaro, 2021	*The Great Resignation: An Argument for Hybrid Leadership*	304
Paul et al., 2016	*Global Virtual Team Performance: The Effect of Coordination Effectiveness, Trust, and Team Cohesion*	112
Purvanova & Bono, 2009	*Transformational leadership in context: Face-to-face and virtual teams*	272
Robert & You, 2018	*Are You Satisfied Yet? Shared Leadership, Individual Trust, Autonomy, and Satisfaction in Virtual Teams*	163
Sedrine et al., 2020	*Leadership style effect on virtual team efficiency: trust, operational cohesion and media richness roles*	300
Average		**224.5**

Source: Compiled by the author.

According to various studies in the table 3 provided above, the sample size varies from 112 to 304. The average section in the table indicates the averaging amount of respondents in the studies. Evidently, in the study it is aimed to gather 225 respondents' survey answers as this number also falls between 30 to 500 (Roscoe, 1975) and over 200 (Kline, 2005). The scholars provide good guidance on the sample size calculation for a reliable study (Memon et al., 2020) and the average number calculated from the scholarly articles gives an exact number of 225 or over to be used in the study.

2.4 Data Collection Methods

The following section defines instruments used in data collection analysis. The data were gathered by the means of an online survey. The survey was distributed in appropriate channels to reach employees working in a hybrid way, i.e. both from home and from the office. A copy of the questionnaire used in the study is added as Annex 1.

To prove or reject the hypotheses, a quantitative research methodology was used. The methodological part of the research combines five main constructs. The table 4 below illustrates main instruments used in the questionnaire of the thesis.

Table 4

Main Instruments Used for the Questionnaire

Construct	Scale	Author	Items
Selection questions	-	-	4
Virtual Leadership	Global Virtual Team Leadership Scale (GVTLS)	(Batırlık et al., 2022)	29
Trust at Work	Workplace Trust Survey (WTS)	(Ferres et al., 2004)	24
Employee Team Cohesion	Erlangen Team Cohesion at Work Scale (ETC)	(Lieb et al., 2024)	13
Autonomy at Work	Work Autonomy Scale	(Breaugh, 1999)	9
Turnover intention	Turnover Intention Scale (TIS - 6)	(Bothma & Roodt, 2013)	6
Demographical questions	-	-	6
Total			**91**

Source: Compiled by the author.

As seen in the table 4 above, the total amount of questions and different statements in the questionnaire amount to 91 items. The list below illustrates the constructs from table in more detail.

- **Global Virtual Team Leadership Scale (GVTLS)** (Batırlık et al., 2022) Likert type scale from 1 to 5 to measure the trust in leadership and workplace. The scale of GVTLS measures the multidimensional framework of virtual team leadership. More specifically, the scale was developed to reliably discover and analyse the virtual team leadership characteristics. Some examples of the questions on virtual team, leadership are *Becomes a role model for its members by being a partner in business* and *Gives one-to-one attention to team members and praises their personal achievements.*

- **Workplace Trust Survey (WTS)** (Ferres et al., 2004) Likert type scale from 1 to 7 is used to measure the trust in leadership and workplace. The scale of WTS measures the organization, co-worker and supervisor trust. Specifically, the scale of supervisor and colleague trust will be used. Some examples of the questions on supervisor trust include *I think that my supervisor appreciates additional efforts I make* and *I act knowing that my supervisor will keep his/her word.*

- **Erlangen Team Cohesion at Work Scale (ETC)** (Lieb et al., 2024) Likert type scale from 1 to 5 to measure the team cohesion. Team cohesion scale shows how close the team members in the team are, some questions about working virtually will also be added. Some example questions from the questionnaire include employees rating the statement *We support each other* and *We treat each other with respect*.

- **Work Autonomy Scale** (Breaugh, 1999) Likert type scale from 1 to 7 to measure the degree of employee autonomy at work. The Work Autonomy Scale measures the level of autonomy with which the employee performs their daily tasks. Example statements for rating from the questionnaire are *My job allows me to modify the normal way we are evaluated so that I can emphasize some aspects of my job and play down others* and *I am able to modify what my job objectives are (what I am supposed to accomplish).*

- **Turnover Intention Scale (TIS – 6)** (Bothma & Roodt, 2013) The scale is a reliable but shortened version to determine turnover intention. It consists of statements and the Likert type scale from 1 to 5. The statements measure the employee turnover intention. Some example questions from the questionnaire are *How often have you considered leaving your job?* and *How often are you frustrated when not given the opportunity at work to achieve your personal work-related goals?*

The aforementioned scales have been used in assembling the questionnaire, the subsection below will explain the data analysis instruments used in the study.

2.5 Data Analysis Instruments

The subsection below provides the information how the gathered data was analysed. The data gathered via the online survey was downloaded in Excel file format. The Excel file with the answers containing words was coded into numbers, from 1 to 5 and 1 to 7 respective to the scales provided in the previous section. The coding was kept so that the higher numbers would represent more of the construct. To add, the questions were shortened and numbered to be made fit for the analysis with the program called Statistical Package for Social Sciences (SPSS). The columns, which were not required for the analysis such as the survey completion time, were excluded from the analysis. After the preparation of the data, it was uploaded to SPSS.

In the SPSS program, variables were assigned the proper measurement levels. Nominal was left for binary and categorical variables, such as yes/no questions, gender, sector and education. Ordinal was chosen for the Likert-scale items and the scale for composite variables (mean scores for constructs) used in the testing of hypotheses.

Next, the reverse coding was applied. In the questionnaire of the study, some of the questions had to be reversed coded in the Likert-scale. The table 5 below shows the reverse coded questions from the survey. This was done to keep consistently the higher number in the scale the positive one.

Table 5

Reverse Coded Questions

Construct	Question for reverse coding
Virtual Leadership	Q 31 – Leader being authoritarian
Team Cohesion	Q60 – Employees being excluded
	Q62 – Employees working alone
Employee Retention	Q79 – Employees leaving job
	Q80 – Personal goals
	Q81 – Dreaming of another job
	Q83 – Personal needs
	Q84 – Choosing another job with the same salary

Source: Author.

The reliability analysis was then carried out and the internal consistency reliability was assessed. Cronbach alpha values were determined to measure the internal consistency of the variables.

After the reliability analysis, the composite scores were calculated to create one score per construct, so that the hypotheses could be tested. The table 6 below illustrates the composite variables.

Table 6

Composite Variables

Construct	Variables
Virtual Leadership	Mean of Q5 – Q33, including Q32R (reversed)
Team Cohesion	Mean of Q58 – Q70, including Q61R and Q63R (reversed)
Trust	Mean of Q34 - Q57
Autonomy	Mean of Q71 - Q79
Employee Retention	Mean of Q83, including Q80R, Q81R, Q82R, Q84R, Q85R (reversed)

Source: Author.

After the composite scores were computed, the descriptive statistics were generated for the composite variables and the normality tests were run. Following that, the Pearson correlation analysis was carried out. The analysis helped determine and assess the strength and direction of relationships between virtual leadership, team cohesion, trust, autonomy and employee retention.

Further the hypothesis testing took place. To determine H1, a simple linear regression was conducted. Then to test the H2, mediation analysis using the PROCESS Macro model 4 by Andrew F Hayes analysis was used. Then, with the PROCESS Macro model 1 (Hayes, 2022), the moderation was used to test H3 and H4. Additionally, a descriptive table was created to report the demographics of the respondents of the study.

3. RESEARCH RESULTS

3.1 Research Participants' Demographic Characteristics

The research conducted aimed to achieve over 225 participants. The grand total of participants were 261 with some answers being rendered unusable due to the fact that some employees were not working in a hybrid manner or were not employed in Lithuania. The total number of usable respondent answers were **235**. The research was held in English language with Lithuanian translation next to it, the example of the questionnaire in English is provided in Annex 1. In the following section, the gender, age, education, and other demographics of the 235 participants will be introduced. The table 7 below illustrates the main demographic characteristics of the survey respondents.

Table 7

Demographic Characteristics

Characteristics	Variable	N	Percentage %
Gender	Female	197	83.8
	Male	35	14.9
	Other	3	1.3
Age	18 – 24 years	38	16.2
	25 – 35 years	104	44.3
	35 – 44 years	62	26.4
	45 – 54 years	20	8.5
	55 - 64 years	11	4.7
Education	Professional	2	0.9
	Secondary	27	11.5
	Higher Education (Non – University)	30	12.8
	Higher Education (University)	176	74.9
Tenure in the Workplace	Less than 1 year	71	30.2
	1 – 3 years	99	42.1
	4 – 7 years	37	15.7

	8+ years	28	11.9
Business Sector	Agriculture / Forestry / Fishing	1	0.4
	Industry and Manufacturing	33	14.0
	Construction	4	1.7
	Trade (Wholesale and Retail)	14	6.0
	Transport and Logistics	13	5.5
	Finance and Insurance	30	12.8
	Healthcare and Social Care	8	3.4
	Education	23	9.8
	Public Sector / Administration (Public administration and defence; compulsory social security)	19	8.1
	Services (Professional, Cultural, Hospitality, etc.)	30	12.8
	Other	60	25.5
Organization size	1 - 9 employees	11	4.7
	10 - 49 employees	32	13.6
	50 - 249 employees	54	23.0
	250 - 499 employees	35	14.9
	500 - 999 employees	17	7.2
	1000+ employees	86	36.6

Source: Author.

The gender of respondents is mostly female, consisting of 197 (83.8%) of all the respondents. The age of the participants is mostly young adults. The vast majority, 104 (44.3%) respondents were between the ages of 25 – 34 years old, the following group of 35 – 44 year olds resulted in 62 (26.4) respondents. Overwhelmingly, the vast majority of 176 (74.9%) of respondents have obtained higher university education. This aligns with the tendency of being employed in a hybrid setting as usually young graduates and professionals tend to work in large organizations. The size of the company where the respondents worked was mostly large, 86 (36.6%) respondents worked in big companies with 1000 employees and over. Other respondents worked in smaller organizations, however the tendency of working in a big company is substantial. Interestingly, the most employees 60 (25.5%) chose other – as a sector, however even with the choice of other dominating, all the sectors had at least some representatives. With most being in the Services 30 (12.8%), Industry and Manufacturing 33 (14%) and Finance and Insurance 30 (12.8%) sectors. Lastly, the respondents show a short-term commitment to the workplace. Most respondents,

totalling in 99 (42.1%) people worked between 1 – 3 years in the workplace, 71 (30.2%) people worked for even less than a year. The results are not particularly surprising as the vast majority of the respondents were young professionals at the start of their careers.

To conclude, most respondents in the study were women, the ages were mostly between 25 – 34. Most employees have obtained university education and work in large companies. The sectors in which they work in vary, however the tenure in the workplace is overwhelmingly short with most working in the same company for 1 – 3 years and a lot working for under a year. As most respondents work in large corporations and are young in age, this aligns with most of the companies' benefit package and the flexibility to work from home being provided. Many respondents are young graduate professionals, so there might be a tendency to change jobs.

3.2 Reliability Analysis and Normality Tests

For the reliability analysis and normality tests, the constructs were grouped into different variables. As the questionnaires were different scale, ranging from Likert scale 1 – 5 and Likert scale 1 – 7, the reliability analysis was done to each of the constructs separately. The table 8 below depicts the variables, Cronbach's alpha and the number of items in the scale, no items were excluded but the reliability analysis was carried out using the abovementioned reverse coded questions.

Table 8

Reliability Analysis

Variable	Cronbach's α	Number of Items
Virtual Leadership	.945	29
Team Cohesion	.886	13
Trust	.955	24
Autonomy	.867	9
Employee Retention	.815	6

Source: Author.

It is evident due to internal reliability analysis, that all scales have satisfactory to excellent reliability. The virtual leadership scale showed excellent internal consistency ($\alpha = .945$, 29 items), team cohesion demonstrated good reliability ($\alpha = .886$, 13 items), the trust scale, which combined trust in co-workers and trust in supervisors, showed excellent internal consistency ($\alpha = .955$, 24 items). Autonomy demonstrated good reliability ($\alpha = .867$, 9 items), while employee retention showed acceptable reliability ($\alpha = .815$, 6 items). As all Cronbach's alpha values exceeded the recommended number of over .70, all scales were considered reliable and were used for further analysis.

To determine normality, both Kolmogorov-Smirnov and Shapiro-Wilk tests were carried out as well as skewness and kurtosis. As the population sample was relatively large, some deviation was expected. The Shapiro-Wilk tests showed that the strict statistical normality was violated as some of the variables were $p < 0.5$. Even though this was the case, the skewness and kurtosis tests are all between the acceptable ranges of –1 and +1. To add, the Q-Q plot depicts the points following the line reasonably well (see Annex 8). It has been decided that the findings and the dataset is valid and has approximately normal distributions.

3.3 Descriptive Statistics and Correlations

The calculated descriptive statistics included all key variables in the study – virtual leadership, team cohesion, trust, autonomy and employee retention. As aforementioned, the total respondent number was 235. The calculations of descriptive statistics were carried out to understand the overall respondents' perceptions of the mentioned variables. For each variable the mean scores, standard deviations, number of observations (N) and minimum to maximum values were calculated. Descriptive statistics are illustrated in the table 9 below.

Table 9

Descriptive statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Virtual Leadership	235	1	5	3.81	.615
Team Cohesion	235	2	5	3.81	.600
Trust	235	3	7	5.51	.909
Autonomy	235	3	7	5.51	.909
Employee Retention	235	1	5	3.25	.760

Source: Author.

As seen from the table above, the results show moderate to high levels of virtual leadership, team cohesion, trust, autonomy and employee retention. Trust and autonomy especially showed high values. This means, that employees working in hybrid teams have a high degree of autonomy and trust at their workplace. The standard deviation shows and supports the data suitability and applicability. The data, thus, can be used for further analysis.

Further, the Pearson correlation was conducted to test the relationships between the variables of the study. All correlations are positive and statistically significant with $p < .001$ (see

Annex 10). As the value is below 0.80, there is no multicollinearity problem. Evidently from the table below, there are key correlations between variables.

Table 10

Correlations

	r	p	Correlation
Virtual Leadership and Employee Retention	.438	< .001	Moderate positive relationship
Virtual Leadership and Team Cohesion	.605	< .001	Strong positive relationship
Team Cohesion and Employee Retention	.426	< .001	Moderate positive relationship
Trust and Virtual Leadership	.729	< .001	Strong positive relationship
Autonomy and Employee Retention	.366	< .001	Moderate positive relationship

Source: Author.

As seen in the table 10 above, virtual leadership has a moderate positive relationship with employee retention. This means, that when the quality or effectiveness of virtual leadership increases, employee retention also increases. Virtual leadership and team cohesion was found to have a strong positive relationship. This leads to the conclusion that strong virtual leadership means strong team cohesion. Further, team cohesion and employee retention has a moderate positive relationship, higher levels of team cohesion indicate that employees are more likely to stay in their workplace with a higher team cohesion. Trust and virtual leadership has a strong positive relationship, the better the virtual leadership is, the stronger the trust. The findings suggest trust has a very strong link with virtual leadership. Leaders in the team who show competence, communication and are supportive stimulate trust in the employees, this correlation is the strongest observed in the analysis. Lastly, autonomy and employee retention has a moderate positive relationship. The moderate positive relationship suggests, that employees who are able to have higher levels of autonomy are more likely to stay in the same team and in the same workplace.

3.4 Hypotheses Testing

In this subsection, the hypothesis testing will be provided. As mentioned in the methodological section above, there have been several hypotheses drawn.

For the **H1 -** *virtual leadership positively influences employee retention*, a simple linear regression analysis was conducted. The effects of virtual leadership on employee retention were

established using the Model Summary, ANOVA and Coefficients tests. The table 11 below illustrates the findings of the Model Summary, a simple linear regression where the independent variable was virtual leadership and the dependant variable was employee retention.

Table 11

Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.438[a]	.192	.188	.685
a. Predictors: (Constant), Virtual Leadership				

Source: Author.

As visible from the table above, the variable virtual leadership, explains 19.2% of the variance in employee retention. Even though the R Square is relatively low, there could be a tendency which aligns with the drawn hypothesis. The higher positive virtual leadership there is, the more employees want to stay in the company.

Further, the table 12 below with the ANOVA tests illustrates whether the model is statistically significant.

Table 12

ANOVA

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.949	1	25.949	55.292	<.001[b]
	Residual	109.348	233	.469		
	Total	135.297	234			
a. Dependent Variable: Employee Retention						
b. Predictors: (Constant), Virtual Leadership						

Source: Author.

The model was found to be statistically significant, $F(1, 233) = 55.29$, $p < .001$. As the F value is high, the model was found to be statistically significant, the ANOVA tests supported the hypothesis that virtual leadership positively influences employee retention.

To add, the regression coefficients illustrated in the table 13 below support the previously illustrated statistically significant relationship between virtual leadership and employee retention.

Table 13

Regression Coefficients

Coefficients							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	1.189	.281		4.229	<.001	.635	1.743
Virtual Leadership	.541	.073	.438	7.436	<.001	.398	.685
a. Dependent Variable: Employee Retention							

Source: Author.

As seen from the table above, when virtual leadership increases by 1 standard deviation, employee retention increases by 0.438, holding other variables constant, this is considered from moderate to strong effect, the more virtual leadership improves, the more employees tend to stay in their workplace.

Accordingly, the regression analysis confirmed the H1 and it is considered to be **supported**. Employees working in hybrid teams in Lithuania are showing higher retention combined with more competence in virtual leadership.

To test the **H2** - *team cohesion mediates the relationship between virtual leadership and employee retention,* a mediation analysis was conducted. The mediation analysis was performed using the PROCESS Model 4 (Hayes, 2022). It was chosen to examine whether team cohesion mediates the relationship between virtual leadership and employee retention. In fact, the results have shown that virtual leadership positively predicts team cohesion (path a) and team cohesion shows significantly positive effect on employee retention (path b). The PROCESS macro model 4 with 5,000 bootstrap samples showed that virtual leadership had a significant effect on employee retention (B = .35, p < .001), which again supported H1. Furthermore, virtual leadership had also a significant indirect effect on employee retention through team cohesion. The indirect effect being .1899 and the confidence interval was between [.07, .33]. Which means, that part of the effect of virtual leadership on employee retention works through team cohesion. As the confidence interval did not include zero, the mediation was indeed supported and was considered to be statistically significant. Reportedly, team cohesion partially mediates the relationship between virtual leadership and employee retention.

Table 14

Mediation analysis for H2

Path	B	SE	95% CI
Virtual Leadership → Team Cohesion	.59	.05	[.49, .69]
Team Cohesion → Employee Retention	.32	.09	[.14, .50]
Virtual Leadership → Employee Retention (direct effect)	.35	.09	[.18, .53]
Indirect Effect via Team Cohesion	**.19**	.07	**[.07, .33]**

Source: Author.

As seen from the table 14 above, it can be claimed, that team cohesion partially mediates the relationship between virtual leadership and employee retention. This further entails that H2 is **supported**.

To test **H3** - *trust moderates the relationship between virtual leadership and team cohesion, such that the relationship is stronger when trust is high*, the PROCEESS macro Model 1 (Hayes, 2022) was carried out. The Model 1 was chosen to discern whether there is a significant interaction between virtual leadership and team cohesion with trust being the moderator. The test has shown the interaction coefficient to be –0.0054 and $p = .8765$, whereas the confidence interval was between [-0.0735, 0.0627]. As the $p > .05$ and the confidence level includes 0. Thus, virtual leadership does predict team cohesion and trust does significantly predict team cohesion, however trust does not moderate the strength of the relationship between virtual leadership and team cohesion. The table 15 below illustrates the moderation findings for H3.

Table 15

Moderation analysis for H3

Path	B	SE	95% CI
Virtual Leadership → Team Cohesion	.13	.06	[.01, .25]
Trust → Team Cohesion	.42	.04	[.34, .51]
Virtual Leadership × Trust	−.01	.03	[−.07, .06]

Source: Author.

As seen from the table above, even though trust carries a lot of importance, it does not strengthen, nor weaken the effect of virtual leadership on team cohesion. Therefore, the H3 is **not supported.**

Lastly, the hypothesis **H4** - *autonomy moderates the relationship between team cohesion and employee retention, such that the relationship is stronger when autonomy is high* was tested. The same method of the PROCESS macro Model 1 (Hayes, 2022) was used to determine the

possible moderation relationship. The results revealed, that the interaction coefficient was 0.678, p = .2494 and the confidence interval was between [-0.479, .1836]. As the p > .05 and the confidence interval included 0, the moderation effect was rendered not significant. The table 16 below illustrates and marks the findings in a succinct manner.

Table 16

Moderation analysis for H4

Path	B	SE	95% CI
Team Cohesion → Employee Retention	.14	.11	[−.07, .35]
Autonomy → Employee Retention	**.39**	.07	**[.25, .52]**
Team Cohesion × Autonomy	.07	.06	[−.05, .18]

Source: Author.

As seen from the table above and by interpreting the findings, the conclusion that H4 is **not supported** can be drawn. Even though the moderation was not supported, some interesting data were also found. The autonomy variable itself had a statistically significant and positive relationship with employee retention. The relationship was so that b = .3850, p < .001. Which means, that the higher the autonomy the employee feels, the higher employee retention rates.

In the upcoming subsection, the research findings and results will be discussed in more detail.

3.5 Results Discussion

This research intended to quantitatively analyse how virtual leadership affects employee's trust, autonomy, team cohesion, turnover intention and retention. The aim was to test the hypotheses raised and add to the research of Lithuanian workforce.

The research results part of the thesis began with introducing the demographic characteristics of the respondents. Most employees were female, between the ages of 24 – 34 years old, with a higher education degree. The sectors in which respondents worked were various, the size of the company was mostly large corporations and the tenure in the workplace was mostly between 1 to 3 years.

After covering the demographic results, the study examined the reliability analysis and the normality tests. The Pearson correlation was conducted and the relationships between the variables were tested. There were many positive relationships found. As previous research already established, well communicating managers are key to success in virtual teams (Depoo & Hyršlová, 2022) and leadership is influential in employee retention (Hauer et al., 2021). The findings

supported this as positive virtual leadership had a moderate positive relationship with employee retention.

Interestingly, both virtual leadership and team cohesion as well as trust and virtual leadership were found to have a strong positive relationship, this supports research which claims that team cohesion plays a crucial role in employee retention (Ganotice et al., 2022; Martins et al., 2022). Team cohesion and employee retention as well as autonomy and employee retention showed moderate positive relationships. The findings of this thesis support the research that leadership is one of the most influential factors in employee turnover rates (Hauer *et al.,* 2021) and that great communication in virtual leadership in fact decreases turnover rates (Mosquera & Branco, 2024). Thus, the findings align with the literature review covered.

Once the correlation analysis was established and carried out, the hypotheses testing were described. The table 17 below summarizes the findings of the hypotheses.

Table 17

Hypotheses results

Hypothesis	Model	Significance (p)	Result
H1: Virtual leadership positively influences employee retention	ANOVA	$< .001$	**Supported**
H2: Team cohesion mediates the relationship between virtual leadership and employee retention	Model 4 (Hayes, 2022)	$< .001$	**Supported**
H3: Trust moderates the relationship between virtual leadership and team cohesion, such that the relationship is stronger when trust is high	Model 1 (Hayes, 2022)	.8765	**Not Supported**
H4: Autonomy moderates the relationship between team cohesion and employee retention, such that the relationship is stronger when autonomy is high	Model 1 (Hayes, 2022)	.2494	**Not Supported**

Source: Author.

As seen from the table above, not all hypotheses were supported. To be more exact, H1 and H2 were supported whereas H3 and H4 were not supported.

Firstly, H1 was aiming to test whether virtual leadership positively influences employee retention. The findings showed, that Lithuanian hybrid team employees show higher retention when more competent virtual leadership is shown, which in turn corresponds to research which shows that virtual leadership is a major deciding factor in choosing to leave or remain in the same company (Oleksa-Marewska & Tokar, 2022; Hauer et al.*,* 2021). This is important to Lithuanian

companies as employee retention and turnover are one of the most expensive and biggest costs for the organization (Mahadi et al., 2020; Oleksa-Marewska & Tokar, 2022; Kossivi et al., 2016). The need of professional and competent leadership is high as many Lithuanian companies still work in a hybrid or remote setting after COVID-19 (Eurostat, 2024). To summarize, the H1 was supported and it was established, that competent virtual leadership indeed aids and strongly adds to retention of employees, which makes it extremely important.

Secondly, the H2 aimed to determine whether team cohesion mediates the relationship between virtual leadership and employee retention. A mediation analysis was conducted and it proved to be supported. Virtual leadership positively predicts team cohesion and team cohesion subsequently shows a positive effect on employee retention. Thus, great virtual leadership positively influences team cohesion which then aids in helping companies retain talent. As team cohesion not only predicts employee retention but also the wellbeing of said employees (Ganotice et al., 2022) as well as team performance (Paul et al., 2016), it is even more important to put emphasis on virtual leadership on hybrid teams. Great management assists in not only keeping talent but also ensuring a positive work environment, job visibility together and social inclusion (Dilby & Farmanesh, 2023).

Thirdly, the H3 aimed to determine whether trust moderates the relationship between virtual leadership and team cohesion, such that the relationship is stronger when trust is high. The hypothesis was not supported and even though trust is an important variable in building relationships between employees and leaders (Greimel et al., 2023) as well as employees amongst themselves (Kirkman et al., 2002), it did not influence the effect of virtual leadership on team cohesion. Even though the effect was not supported, the claim that virtual leadership is extremely important in employee retention as well as the wellbeing of employees stays proven.

Lastly, the H4 aimed to test whether autonomy moderates the relationship between team cohesion and employee retention, such that the relationship is stronger when autonomy is high. The hypothesis was not supported but the test showed interesting results. It was established, that autonomy showed a statistically significant and positive relationship with employee retention. The findings match the scientific literature, as lack of autonomy is connected to high employee turnover (Mahadi et al., 2020) and the more support employees receive from the management, the more they feel empowered to perform tasks autonomously (Robert & You, 2018). Although autonomy did not moderate the relationship between team cohesion and employee retention, it by itself highly influences employee retention, similarly to virtual leadership.

Hence, the results part of the thesis illustrated and confirmed the importance of virtual leadership in Lithuanian hybrid teams on employee retention. It is important to note, that the positively higher virtual leadership, the higher employee retention. Therefore, a competent virtual

leader has a lot of impact on retaining talent in the company, competent leadership is also positively linked with higher job satisfaction (Efimov et al., 2022). In addition, team cohesion has a significant role in mediating the relationship on virtual leadership and employee retention. This emphasizes the importance of a team in a remote or hybrid setting as oftentimes the remote or hybrid working arrangement can be isolating and lonely (Zeuge et al., 2021). A well-established team with high team cohesion influences the decision to stay in the workplace. Though neither the hypotheses H3, nor H4 were supported, a highly important and influential link between autonomy and employee retention was found. Autonomy influences employee retention similarly as virtual leadership, i.e. when autonomy is high, employee retention is high. This is understandable as in hybrid teams employees work from home and are more often in charge of their own work. As autonomy is generally desired by employees and is linked with a lower hierarchical organization (Ravn et al., 2022), the link between autonomy and employee retention is justified. The strong relationship of autonomy and employee retention could also be explained partly because of the respondent's young age. As it is established, that young adults enjoy flexible working arrangements, informal communication styles and show high digital adaptability as well as need for fair pay (Shinde & Surve, 2025). Ultimately, the study found that virtual leadership as well as autonomy are influential factors in hybrid Lithuanian employee's retention. The autonomy results are amplified as the respondent's age group was quite young.

CONCLUSIONS

1. Although virtual leadership is not a new concept, it now occurs very frequently after the recent worldwide pandemic. Research shows that efficient and skilful virtual leadership is among several variables that influence employee retention. It is especially important for employees working in hybrid teams, as physical distance between a leader, teams and individual employees is a significant obstacle for maintaining close workplace relationships. The exponential rise in work from home makes researching virtual leadership very important. The extensive need of trust, autonomy and team cohesion influence the wellbeing of employees, which determines employee retention.

2. Professional virtual leaders, who foster a positive environment and engage with employees, are positively influencing their work experience. This in turn leads to retained talent and the companies' substantially reduced costs on finding new talent, onboarding and teaching the employees. Virtual leadership requires amplified abilities in communication, organizational skills and emotional intelligence. Team cohesion is important in productivity and adds to the emotional wellbeing of the employees. Trust is incremental in having positive workplace communication and in hybrid teams it is generally more difficult to build due to employees and leaders working from afar. Autonomy is connected to trust and is extremely important to hybrid workers as the tendency to enhance autonomy shows positive relations between team members. All of the variables are essential for effective work and all of them aid in ensuring high employee retention levels.

3. The study was conducted based on the created research model. The research revealed moderate to high levels of virtual leadership, team cohesion, trust, autonomy and employee retention. H1 and H2 were accepted and supported. Therefore, it was established, that employees with competent virtual leaders show higher retention. To add, it was found that high positive values of virtual leadership show a connection to high positive values in team cohesion. This then helps companies to keep key talent. Proper virtual leadership as well as team cohesion assists in holding onto employees as well. Even though H3 and H4 were not supported, the test showed an interesting relationship between autonomy and employee retention. It was found that positively high autonomy marks showed positively high employee retention marks. Therefore, it can be claimed that positively high autonomy as

well as positively high virtual leadership are connected to higher employee retention numbers.

4. The conducted research showed that virtual leadership has a direct impact on the willingness of employees to leave or stay in their workplace. Team cohesion was found to mediate the relationship between virtual leadership and employee retention. In fact, virtual leadership positively predicts team cohesion and team cohesion shows significant positive effect on employee retention. Virtual leadership had also a significant indirect effect on employee retention through team cohesion. Trust was not found to moderate the relationship between virtual leadership and team cohesion, such that the relationship is stronger when trust is high. Similarly, autonomy was not found to moderate the relationship between team cohesion and employee retention, such that the relationship is stronger when autonomy is high. That being said, a strong relationship between autonomy and employee retention was found. The study shows, the higher the virtual leadership and the higher the autonomy, the higher the employee retention.

RECOMMENDATIONS AND STUDY LIMITATIONS

In current times, hybrid and remote teams are very common. Although virtual leadership is not a new concept, it now occurs very frequently after the recent worldwide pandemic. Companies choose a hybrid working arrangement not only because of employees but it also can cut costs and commute times, not to mention avoiding the commute every day is beneficial to the environment.

To keep hybrid teams engaged and satisfied and keep the employee retention levels high, some suggestions can be made:

1. The study revealed that competent virtual leadership show high employee retention rates. This means that great virtual leaders engage their teams and work together. This retains talent and in turn saves costs for an organization. Great leaders are social, they work well with others and show empathy towards followers. The suggestion for companies would be to focus on virtual leadership and provide aid and support for leaders in virtual teams so they could have confidence and tools to positively manage their teams. Emphasize communication and well-being of employees, as well as leadership skills. Management with HR should conduct various trainings to improve the communication and leadership skills. Also HR or various IT and digital teams should hold workshops which teach digital skills such as different conferencing tools usage, email etiquette and non-verbal, written communication.

2. Research also showed that positive high levels of autonomy matched with high levels of positive employee retention. As previously conducted research shows and this thesis confirms, younger employees understand and emphasize the flexibility and autonomy in the workplace. The suggestion would be to keep the work autonomy high to retain employees. Leaders should let employees manage their tasks, schedules and working arrangements as much as it would seem fit. High employee retention in places where autonomy is high means that young people are interested and want to work in places where they can make their own decisions.

Study Limitations. This thesis has limitations which should be acknowledged. Firstly, a more complex research model with more variables, such as job satisfaction, work-life balance, leadership style could have been carried out. Secondly, the demographics has shown, that the respondents gender was predominantly female and the age bracket was mostly from 25 – 34 years

of age. For further research, it would be advisable to diversify the demographics of the respondents. To add, most were from large or very large companies, it would be good to distribute the questionnaire to smaller companies in Lithuania and compare the results.

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THE IMPACT OF VIRTUAL LEADERSHIP ON EMPLOYEE RETENTION IN LITHUANIA: MEDIATING ROLE OF TEAM COHESION AND MODERATING ROLE OF TRUST AND AUTONOMY IN HYBRID TEAMS

GABIJA MĖLINSKĖ

Master Thesis

Human Resource Management Programme

Faculty of Economics and Business Administration, Vilnius University

Supervisor: Asst. Prof. Dr. Julija Savickė

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SUMMARY

84 pages, 17 tables, 1 figure, 110 references.

The main goal of this master thesis is to determine the impact of virtual leadership on employee retention in Lithuania, to find out the mediating role of team cohesion and moderating role of trust and autonomy in hybrid teams.

The master thesis consists of three main parts starting from the analysis of scientific literature, following with the research and its results and finalizing with conclusions, suggestions and research limitations.

The literature review part of the thesis covers the main concepts of leadership as well as virtual leadership, trust, team cohesion, autonomy, turnover intention and employee retention.

Following the literature review, the methodological part of the thesis is introduced. In total, 235 usable respondent surveys were analysed. The main purpose of the research was to find out the impact of virtual leadership on employee retention in Lithuania, and to determine the mediating role of team cohesion and moderating role of trust and autonomy in hybrid teams.

The research results revealed that there is a moderate positive correlation between virtual leadership and employee retention. Thus, virtual leadership has a direct impact on the willingness of employees to leave or stay in their workplace. Team cohesion was found to mediate the relationship between virtual leadership and employee retention. In fact, virtual leadership positively predicts team cohesion and team cohesion shows significant positive effect on employee retention. Virtual leadership also had a significant indirect effect on employee retention through team cohesion. Trust was not found to moderate the relationship between virtual leadership and team cohesion, such that the relationship is stronger when trust is high. Similarly, autonomy was not found to moderate the relationship between team cohesion and employee retention, such that the relationship is stronger when autonomy is high. That being said, a strong relationship between autonomy and employee retention was found. The study shows, the higher the virtual leadership and the higher the autonomy, the higher the employee retention.

Lastly, the conclusions and the recommendations together with the research limitations were provided. The results of the study and the recommendations provided could be used for companies where employees work in a hybrid work setting.

Key words: virtual leadership, trust, autonomy, employee retention, Lithuania, hybrid working.

VIRTUALIOS LYDERYSTĖS POVEIKIS DARBUOTOJŲ IŠLAIKYMUI LIETUVOJE: KOMANDOS SANGLAUDOS MEDIACINIS VAIDMUO IR PASITIKĖJIMO BEI AUTONOMIJOS MODERACINIS VAIDMUO HIBRIDINĖSE KOMANDOSE

GABIJA MĖLINSKĖ

Magistro baigiamasis darbas

Žmogiškųjų išteklių valdymas

Vilniaus universiteto Ekonomikos ir verslo administravimo fakultetas

Darbo vadovas - Asst. Prof. Dr. Julija Savickė

Vilnius, 2026

SANTRAUKA

84 puslapiai, 17 lentelių, 1 paveikslėlis, 110 literatūros šaltiniai.

Pagrindinis šio darbo tikslas yra nustatyti virtualios lyderystės poveikį darbuotojų išlaikymui Lietuvoje ir išsiaiškinti komandos sanglaudos mediacinį vaidmenį bei pasitikėjimo ir autonomijos moderacinį vaidmenį hibridinėse komandose.

Darbas sudarytas iš trijų pagrindinių dalių. Darbas prasideda su literatūros analize, po jos seka tyrimas bei jo rezultatai ir baigiasi su išvadomis, rekomendacijomis ir tyrimo apribojimais.

Teorinėje darbo dalyje aprašytos lyderystės, virtualios lyderystės, pasitikėjimo, komandos sanglaudos autonomijos bei ketinimo palikti darbą ir darbuotojų išlaikymo sąvokos.

Po teorinės darbo dalies apžvalgos buvo atlikta metodologinė darbo dalis. Iš viso išanalizuotos 235 darbuotojų anketos. Pagrindinis tyrimo tikslas buvo nustatyti virtualios lyderystės poveikį darbuotojų išlaikymui Lietuvoje ir išsiaiškinti komandos sanglaudos mediacinį vaidmenį bei pasitikėjimo ir autonomijos moderacinį vaidmenį hibridinėse komandose.

Tyrimas padėjo atskleisti, kad tarp virtualios lyderystės bei darbuotojų išlaikymo egzistuoja vidutinio stiprumo teigiama koreliacija. Taigi, virtuali lyderystė daro tiesiogę įtaką darbuotojų apsisprendimui likti ar išeiti iš savo esamos darbovietės. Tyrimo metu patvirtintas egzistuojantis mediacinis ryšys tarp virtualios lyderystės ir darbuotojų išlaikymo. Virtuali lyderystė taip pat turėjo netiesioginį, reikšmingą, teigiamą poveikį darbuotojų išlaikymui veikiantį per komandos sanglaudą. Moderacinis ryšys tarp pasitikėjimo, virtualiosios lyderystės bei komandos sutelktumo taip, kad šis ryšys būtų esantis aukštam pasitikėjimo lygiui nebuvo nustatytas. Nebuvo nustatytas ir moderacinis autonomijos bei komandos sanglaudos ir darbuotojų išlaikymo ryšys taip, kad šis ryšys būtų stipresnis esant aukštam autonomijos lygiui. Buvo rastas stiprus ryšys tarp autonomijos ir darbuotojų išlaikymo, kuo aukštesnis virtualios lyderystės ir autonomijos lygis organizacijoje, tuo aukštesnis darbuotojų išlaikymo lygis.

Galiausiai darbe pateiktos išvados bei rekomendacijos ir tyrimo apribojimai. Tyrimo rezultatai bei pateiktos rekomendacijos gali būti naudojami organizacijų bei kompanijų kurios naudoja hibridinį darbo pobūdį.

Raktiniai žodžiai: virtuali lyderystė, pasitikėjimas, autonomija, darbuotojų išlaikymas, Lietuva, hibridinis darbas.

ANNEXES

Annex 1. Questionnaire in English and Lithuanian languages

Dear respondent,

My name is Gabija, and I am a second-year Master's student at Vilnius University, studying Human Resources.

I would greatly appreciate up to 9 minutes of your time to complete a questionnaire for my thesis research. The survey aims to explore virtual leadership and its impact on employee trust, team cohesion, autonomy, and retention in hybrid teams based in Lithuania.

If you currently work in a hybrid format (from both home and the office) and are employed in Lithuania, your input would be incredibly valuable!

Thank you very much in advance for your support!

-
Gerbiamas respondente,

mano vardas Gabija, esu antro kurso Vilniaus universiteto magistrantūros studentė, studijuojanti žmogiškuosius išteklius.

Būčiau labai dėkinga, jei skirtumėte iki 9 minučių šio klausimyno užpildymui, kuris reikalingas mano baigiamojo darbo tyrimui. Šio tyrimo tikslas – išnagrinėti virtualią lyderystę ir jos poveikį darbuotojų pasitikėjimui, komandos sanglaudai, autonomijai ir darbuotojų išlaikymui hibridinėse komandose, veikiančiose Lietuvoje.

Jeigu šiuo metu dirbate hibridiniu būdu (t. y. tiek iš namų, tiek biure) ir esate įdarbintas (-a) Lietuvoje, Jūsų atsakymai būtų itin vertingi!

Iš anksto dėkoju už Jūsų pagalbą!

Section 1. Selection questions.

1. Do you sometimes work remotely? / Ar kartais dirbate nuotoliu?
   - Yes / Taip
   - No / Ne
2. Are you employed in Lithuania? / Ar esate įdarbintas Lietuvoje?
   - Yes / Taip
   - No / Ne
3. How often do you have remote meetings with your supervisor? / Kaip dažnai nuotoliniu būdu susitinkate su savo vadovu?
   - 4 - 6 times a month or more / / 4–6 kartus per mėnesį arba dažniau
   - 2 - 3 times a month / 2–3 kartus per mėnesį
   - Less than 2 times a month / rečiau nei 2 kartus per mėnesį

- Never / Nesusitinku

4. Does your leader sometimes work remotely? / Ar jūsų vadovas kartais dirba nuotoliniu būdu?
- Yes / Taip
- No / Ne

Section 2. Virtual Leadership.

Please indicate your level of agreement with the following statements, using a scale from 1 (strongly disagree) to 5 (strongly agree). Your virtual leader…

Virtuali lyderystė. Prašome pažymėti, kiek sutinkate su šiais teiginiais, naudodami skalę nuo 1 (visiškai nesutinku) iki 5 (visiškai sutinku). Jūsų vadovas nuotoliu…

	1	2	3	4	5
5. Has information about different cultures and effectively manages cultural differences within the team. / Turi žinių apie skirtingas kultūras ir veiksmingai valdo kultūrinius skirtumus komandoje.	1	2	3	4	5
6. Determines the meeting time, taking into account the availability and private lives of the team members. / Nustato susitikimo laiką atsižvelgdamas (-a) į komandos narių užimtumą ir asmeninį gyvenimą.	1	2	3	4	5
7. Designs the meeting environment according to the nature of the work. / Suplanuoja susitikimo aplinką pagal darbo pobūdį.	1	2	3	4	5
8. With team members from different countries, has a command of the common language used to communicate. / Bendraudamas (a) su komandos nariais iš skirtingų šalių, gerai moka bendrą naudojamą kalbą.	1	2	3	4	5
9. His/her communication skills are high. / Jo(s) komunikacijos įgūdžiai yra aukšti.	1	2	3	4	5
10. Uses gestures, facial expressions and tone of voice effectively. / Veiksmingai naudoja gestus, mimiką ir balso toną.	1	2	3	4	5
11. By creating virtual sub-teams and using asynchronous means (e.g., discussion threads) allows different opinions to be expressed. / Kurdamas (a) virtualius pogrupius ir naudodamas (a) asinchronines priemones (pvz., diskusijų gijas) leidžia išreikšti skirtingas nuomones.	1	2	3	4	5
12. Has high technical knowledge about the virtual communication tool he/she uses. / Turi aukštą techninių žinių lygį apie naudojamą virtualaus bendravimo įrankį.	1	2	3	4	5
13. Gives one-to-one attention to team members and praises their personal achievements.	1	2	3	4	5

/ Skiria asmeninį dėmesį komandos nariams ir pagiria jų asmeninius pasiekimus.					
14. Does not publicly express the failures of team members, but makes criticisms one-to-one. / Kritiką komandos nariams pateikia individualiai, o ne viešai.	1	2	3	4	5
15. Ensures that individual achievements are reflected in the salary. / Užtikrina, kad individualūs pasiekimai atsispindėtų atlyginime.	1	2	3	4	5
16. Appoints project-based consultants by dividing the team into small groups. / Padalija komandą į mažas grupes ir paskiria projekto pagrindu veikia nčius konsultantus.	1	2	3	4	5
17. Keeps the meeting time short and makes the environment fun. / Laiko susitikimą trumpą ir padaro jį įdomų.	1	2	3	4	5
18. Sets short goals and breaks work down into micro-packages. / Nustato trumpalaikius tikslus ir suskaido darbą į mažas dalis.	1	2	3	4	5
19. Allows team members to submit work reports. / Leidžia komandos nariams pateikti darbo ataskaitas.	1	2	3	4	5
20. Holds the meeting by exchanging views with team members. / Veda susitikimą keisdamasis nuomonėmis su komandos nariais.	1	2	3	4	5
21. Coordinates and directs the team. / Koordinuoja ir vadovauja komandai.	1	2	3	4	5
22. Delegates and monitors work. / Paskirsto darbus ir stebi jų vykdymą.	1	2	3	4	5
23. Becomes a role model for its members by being a partner in business. / Dirbdamas kartu tampa pavyzdžiu komandos nariams.	1	2	3	4	5
24. Activates all team members in the meeting. / Įtraukia visus komandos narius į susitikimą.	1	2	3	4	5
25. Eliminates the distracting elements around the meeting during the meeting. / Susitikimo metu pašalina dėmesį blaškančius elementus.	1	2	3	4	5
26. Mentions the aims and rules of the meeting before the meeting. / Prieš susitikimą pamini susitikimo tikslus ir taisykles.	1	2	3	4	5
27. Gives the team members the right to speak at the required level. / Suteikia komandos nariams tinkamą galimybę pasisakyti.	1	2	3	4	5
28. Allows members to reach consensus. / Leidžia komandos nariams pasiekti sutarimą.	1	2	3	4	5

29. Takes precautions by sensing conflict in advance. / Iš anksto nujausdamas (-a) konfliktą imasi prevencinių priemonių.	1 2 3 4 5
30. Is open to innovations. / Yra atviras (-a) naujovėms.	1 2 3 4 5
31. Friendly and fun. / Draugiškas (-a) ir linksmas (-a).	1 2 3 4 5
32. Authoritarian and rule maker. / Autoritariškas (-a) ir taisyklių kūrėjas (-a).	1 2 3 4 5
33. With his/her appearance and characteristics adapts to the environment. / Savo išvaizda ir savybėmis prisitaiko prie aplinkos.	1 2 3 4 5

Section 3. Trust.

Trust in Co-Workers and Supervisor. Please indicate your level of agreement with the following statements, using a scale from 1 (strongly disagree) to 7 (strongly agree).

Pasitikėjimas kolegomis ir vadovu. Prašome nurodyti, kiek sutinkate su toliau pateiktais teiginiais, naudodami skalę nuo 1 (visiškai nesutinku) iki 7 (visiškai sutinku).

34. I feel I can trust my co-workers to do their jobs well. / Jaučiu, kad galiu pasitikėti savo kolegomis, jog jie gerai atlieka savo darbą.	1 2 3 4 5 6 7
35. I proceed with the knowledge that my co-workers are considerate of my interests. / Veikiu turėdama žinių, kad mano kolegos rūpinasi mano interesais.	1 2 3 4 5 6 7
36. I believe that my co-workers will support me if I have problems. / Tikiu, kad mano kolegos mane palaikys, jei kils problemų.	1 2 3 4 5 6 7
37. Most employees at this organization believe that co-workers are reliable. / Dauguma šios organizacijos darbuotojų mano, kad kolegos yra patikimi.	1 2 3 4 5 6 7
38. I feel confident that my co-workers appreciate my good work. / Jaučiu pasitikėjimą, kad mano kolegos vertina mano gerą darbą.	1 2 3 4 5 6 7
39. I feel that my co-workers are truthful in their dealings with me. / Jaučiu, kad mano kolegos yra sąžiningi bendraudami su manimi.	1 2 3 4 5 6 7

	1	2	3	4	5	6	7
40. I think that my co-workers act reliably from one moment to the next. / Manau, kad mano kolegos elgiasi patikimai nuo vienos akimirkos iki kitos.	1	2	3	4	5	6	7
41. I will act on the foundation that my co-workers display ethical behavior. / Veikiu manydama, kad mano kolegos elgiasi etiškai.	1	2	3	4	5	6	7
42. Most employees at this organization believe that co-workers will be supportive if problems arise. / Dauguma šios organizacijos darbuotojų mano, kad kolegos palaikys, jei kils problemų.	1	2	3	4	5	6	7
43. I believe that my co-workers give me all the information to assist me at work. / Tikiu, kad mano kolegos suteikia man visą informaciją, reikalingą darbui atlikti.	1	2	3	4	5	6	7
44. Employees at this organization generally feel that co-workers appreciate their good work. / Šios organizacijos darbuotojai apskritai jaučiasi, kad kolegos vertina jų gerą darbą.	1	2	3	4	5	6	7
45. I behave on the basis that my co-workers will not disclose personal information. / Veikiu manydama, kad mano kolegos neatskleis mano asmeninės informacijos.	1	2	3	4	5	6	7
46. I feel that my supervisor listens to what I have to say. / Jaučiu, kad mano vadovas išklauso, ką turiu pasakyti.	1	2	3	4	5	6	7
47. I proceed on the basis that my supervisor will act in good faith. / Tikiu, kad mano vadovas veiks sąžiningai.	1	2	3	4	5	6	7
48. I act on the basis that my supervisor displays integrity in his/her actions. / Veikiu manydamas (-a), kad mano vadovas elgiasi sąžiningai.	1	2	3	4	5	6	7
49. I think that my supervisor appreciates additional efforts I make. / Manau, kad mano vadovas vertina mano papildomas pastangas.	1	2	3	4	5	6	7
50. I act knowing that my supervisor will keep his/her word. / Dirbu žinodamas (-a), kad vadovas laikysis savo žodžio.	1	2	3	4	5	6	7
51. I believe that my supervisor follows through promises with action. / Tikiu, kad mano vadovas pažadus paverčia veiksmais.	1	2	3	4	5	6	7
52. I feel that my supervisor is available when needed. / Jaučiu, kad mano vadovas yra pasiekiamas, kai jo reikia.	1	2	3	4	5	6	7
53. I believe that my supervisor keeps personal discussions confidential. / Tikiu, kad mano vadovas saugo asmeninių pokalbių konfidencialumą.	1	2	3	4	5	6	7

54. I feel that my supervisor trusts his/her employees to work without excessive supervision. / Jaučiu, kad mano vadovas pasitiki darbuotojais ir nesiekia pernelyg kontroliuoti.	1	2	3	4	5	6	7
55. Employees generally believe that management provides honest answers. / Darbuotojai paprastai tiki, kad vadovybė pateikia sąžiningus atsakymus.	1	2	3	4	5	6	7
56. It is frequently acknowledged by employees of this organization that their immediate supervisors reward those who perform well. / Organizacijoje pripažįstama, kad tiesioginiai vadovai apdovanoja gerai dirbančius darbuotojus.	1	2	3	4	5	6	7
57. Most people at this organization feel comfortable with their immediate supervisors. / Dauguma darbuotojų jaučiasi patogiai su savo tiesioginiais vadovais.	1	2	3	4	5	6	7

Section 4. Team Cohesion.

Team cohesion. Please indicate your level of agreement with the following statements, using a scale from 1 (strongly disagree) to 5 (strongly agree).

Komandinė sanglauda. Prašome pažymėti, kiek sutinkate su šiais teiginiais, naudodami skalę nuo 1 (visiškai nesutinku) iki 5 (visiškai sutinku).

58. We support each other. / Mes palaikome vieni kitus.	1	2	3	4	5
59. We treat each other with respect. / Mes elgiamės vieni su kitais pagarbiai.	1	2	3	4	5
60. We can rely on each other. / Galime pa ikliauti vieni kitais.	1	2	3	4	5
61. There are members of the team that are being excluded. / Kai kurie komandos nariai yra atskiriami.	1	2	3	4	5
62. There is a fair distribution of workload within the team. / Komandoje darbai pasiskirsto sąžiningai.	1	2	3	4	5
63. Everyone is left to work on their own. / Visi paliekami dirbti savarankiškai.	1	2	3	4	5
64. There is a good communication within the team. / Komandoje vyksta gera komunikacija.	1	2	3	4	5

65. We stick together. / Mes laikomės drauge.	1	2	3	4	5
66. Everyone is free to express their opinion openly. / Visi gali laisvai išreikšti savo nuomonę.	1	2	3	4	5
67. We handle problems in a constructive manner. / Mes konstruktyviai sprendžiame problemas.	1	2	3	4	5
68. There is a sense of "we" among us. / Tarp mūsų jaučiamas „mes" bendrystės jausmas.	1	2	3	4	5
69. In case of disagreements, we usually find a good compromise. / Nesutarimų atveju dažniausiai randame gerą kompromisą.	1	2	3	4	5
70. New team members are quickly integrated into the team. / Nauji komandos nariai greitai įsilieja į komandą.	1	2	3	4	5

Section 5. Autonomy

Autonomy. Please indicate your level of agreement with the following statements, using a scale from 1 (strongly disagree) to 7 (strongly agree).

Autonomija. Prašome nurodyti, kiek sutinkate su toliau pateiktais teiginiais, naudodami skalę nuo 1 (visiškai nesutinku) iki 7 (visiškai sutinku).

71. I am allowed to decide how to go about getting my job done (the methods to use). / Man leidžiama nuspręsti, kokiais metodais atlikti savo darbą.	1	2	3	4	5	6	7
72. I am able to choose the way to go about my job (the procedures to utilize). / Galiu pasirinkti, kokias procedūras naudoti darbe.	1	2	3	4	5	6	7
73. I am free to choose the method(s) to use in carrying out my work. / Esu laisvas (-a) nuspręsti, kokius metodus taikyti savo darbe.	1	2	3	4	5	6	7
74. I have control over the scheduling of my work. / Turiu kontrolę dėl savo darbo grafiko.	1	2	3	4	5	6	7
75. I have some control over the sequencing of my work activities. (when I do what). / Galiu iš dalies pats (-i) nuspręsti, kokia seka atlikti užduotis.	1	2	3	4	5	6	7
76. My job is such that I can decide when to do particular work activities. / Mano darbas yra toks, kad galiu pats (-i) pasirinkti, kada atlikti tam tikras užduotis.	1	2	3	4	5	6	7

77. My job allows me to modify the normal way we are evaluated so that I can emphasize some aspects of my job and play down others. / Mano darbas leidžia man keisti įprastus vertinimo kriterijus, kad galėčiau akcentuoti vienus darbo aspektus ir mažiau dėmesio skirti kitiems.	1	2	3	4	5	6	7
78. I am able to modify what my job objectives are (what I am supposed to accomplish). / Galiu koreguoti savo darbo tikslus (ką turiu pasiekti).	1	2	3	4	5	6	7
79. I have some control over what I am supposed to accomplish (what my supervisor sees as my job objectives). / Turiu dalinę kontrolę dėl to, ką turiu pasiekti (kaip mano vadovas supranta mano darbo tikslus).	1	2	3	4	5	6	7

Section 4. Turnover Intention (TIS – 6)

Please indicate your level of agreement with the following statements, using a scale from 1 (Never) to 5 (Always). During the past 9 months...

Prašome nurodyti, kiek sutinkate su toliau pateiktais teiginiais, naudodami skalę nuo 1 (niekada) iki 5 (visada). Per pastaruosius 9 mėnesius…

80.	How often have you considered leaving your job? / Kaip dažnai svarstėte galimybę išeiti iš darbo?	Never / Niekada	1, 2, 3, 4, 5	Always / Visada
81.	How satisfying is your job in fulfilling your personal needs? / Kiek esate patenkintas (-a) savo darbu, atsižvelgiant į asmeninius poreikius?	Very satisfying / Labai patenkintas (-a)	1, 2, 3, 4, 5	Totally dissatisfying / Labai nepatenkintas (a)
82.	How often are you frustrated when not given the opportunity at work to achieve your personal work-related goals? / Kaip dažnai jaučiatės nusivylęs, kai darbe nesuteikiama galimybė pasiekti savo asmeninių su darbu susijusių tikslų?	Never / Niekada	1, 2, 3, 4, 5	Always / Visada
83.	How often do you dream about getting another job that will better suit your personal needs? / Kaip dažnai svajojate apie kitą darbą, kuris geriau atitiktų jūsų asmeninius poreikius?	Never / Niekada	1, 2, 3, 4, 5	Always / Visada
84.	How likely are you to accept another job at the same compensation level should it be offered to you? / Kaip tikėtina,	Highly unlikely /	1, 2, 3, 4, 5	Highly likely / Labai tikėtina

kad priimtumėte kitą darbą su tokia pačia atlyginimo lygiu, jei jis jums būtų pasiūlytas?	Labai netikėtina	
85. How often do you look forward to another day at work? / Kaip dažnai laukiate kitos darbo dienos?	Always / Visada	1, 2, 3, 4, 5	Never / Niekada

Section 5. Demographic survey questions

86. Gender – Please choose / Lytis - prašome pasirinkti	• Female / Moteris • Male / Vyras • Other / Kita
87. Age – Please choose / Jūsų amžius- prašome pasirinkti	• Under 18 years / Mažiau nei 18 metų • 18-24 years / 18 - 24 metai • 25-34 years / 25 - 34 metai • 35-44 years / 35 - 44 metai • 55-64 years / 55 - 64 metai • 65-74 years / 65 - 74 metai • 75-84 years / 75- 84 metai • 85 or over / 85 ir daugiau metų
88. Education – Please choose / Išsilavinimas- prašome pasirinkti	• Primary – Pradinis išsilavinimas • Secondary – Vidurinis išsilavinimas • Professional – Profesinis išsilavinimas • Higher Education (Non-university) – Aukštasis neuniversitetinis išsilavinimas (koleginis) • Higher Education (University) – Aukštasis universitetinis išsilavinimas
89. Tenure in the workplace – Please choose / Darbo stažas šioje organizacijoje – prašome pasirinkti	• Less than 1 year / Mažiau nei metai • 1-3 years / 1-3 metai • 4-7 years / 4-7 metai • 8+ years / 8+ metai
90. Sector of your workplace – Please choose / Darbo vietos sektorius – prašome pasirinkti	• Agriculture / Forestry / Fishing – Žemės ūkis / miškininkystė / žuvininkystė • Industry and Manufacturing – Pramonė ir gamyba • Construction – Statyba • Trade (Wholesale and Retail) – Prekyba (didmeninė ir mažmeninė) • Transport and Logistics – Transportas ir logistika • Finance and Insurance – Finansai ir draudimas • Healthcare and Social Care – Sveikatos priežiūra ir socialinė rūpyba • Education – Švietimas • Public Sector / Administration (Public administration and defence; compulsory social security) – Viešasis sektorius / administravimas (Viešasis administravimas ir gynyba; privalomasis socialinis draudimas)

	• Services (Professional, Cultural, Hospitality, etc.) – Paslaugos (profesinės, kultūros, maitinimo ir kt.) • Other – Kita
91. Size of your company – Please choose / Jūsų įmonės dydis – prašome pasirinkti, kiek žmonių dirba jūsų įmonėje	• 1 - 9 employees / 1 - 9 darbuotojų • 10 - 49 employees / 10 - 49 darbuotojų • 50 - 249 employees / 50 - 249 darbuotojų • 250 - 499 employees / 250 - 499 darbuotojų • 500 - 999 employees / 500 - 999 darbuotojų • 1000+ employees / 1000+ darbuotojų

Annex 2. Reliability statistics of Virtual Leadership

Reliability Statistics	
Cronbach's Alpha	N of Items
.945	29

Annex 3. Reliability statistics of Team Cohesion

Reliability Statistics	
Cronbach's Alpha	N of Items
.886	13

Annex 4. Reliability statistics of Trust

Reliability Statistics	
Cronbach's Alpha	N of Items
.955	24

Annex 5. Reliability statistics of Autonomy

Reliability Statistics	
Cronbach's Alpha	N of Items
.867	9

Annex 6. Reliability statistics of Turnover Intention

Reliability Statistics	
Cronbach's Alpha	N of Items
.815	6

Annex 7. Variable Normality Tests and Q-Q Plot Diagrams

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Tests of Normality						
	Statistic	df	Sig.	Statistic	df	Sig.
Virtual_Leadership	.039	235	.200[*]	.982	235	.004
Team_Cohesion	.071	235	.006	.979	235	.001
Trust	.068	235	.011	.965	235	<.001
Autonomy	.068	235	.011	.965	235	<.001
Employee_Retention	.063	235	.026	.989	235	.070
*. This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

Normal Q-Q Plot of Virtual_Leadership

Normal Q-Q Plot of Team_Cohesion

Normal Q-Q Plot of Trust

Normal Q-Q Plot of Autonomy

Normal Q-Q Plot of Employee_Retention
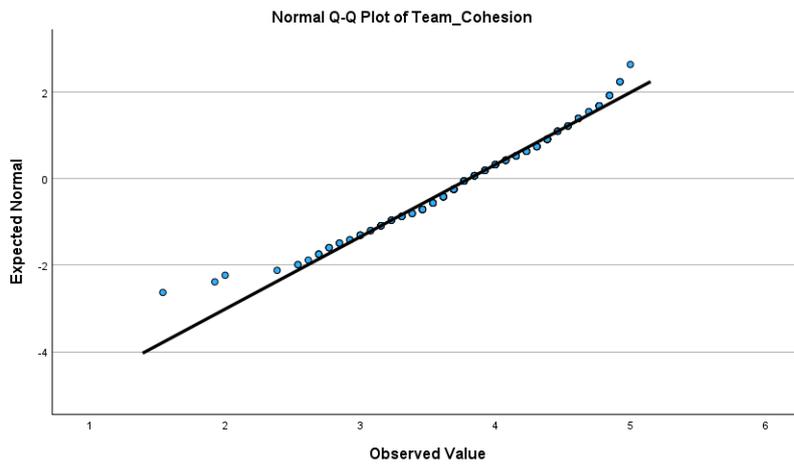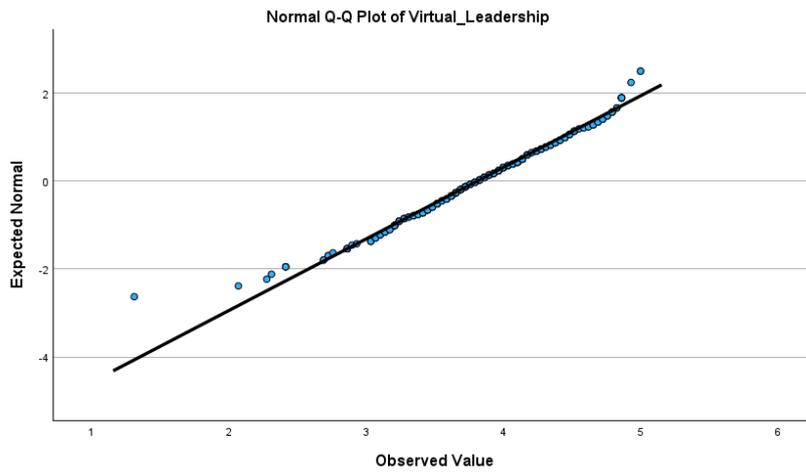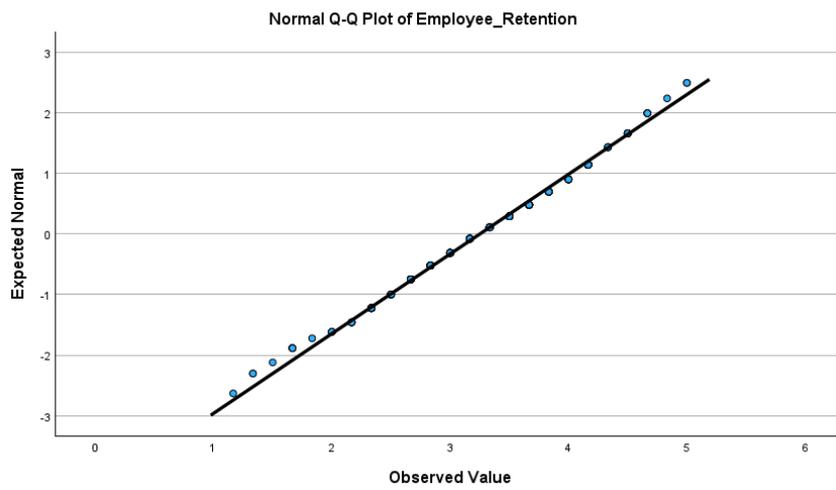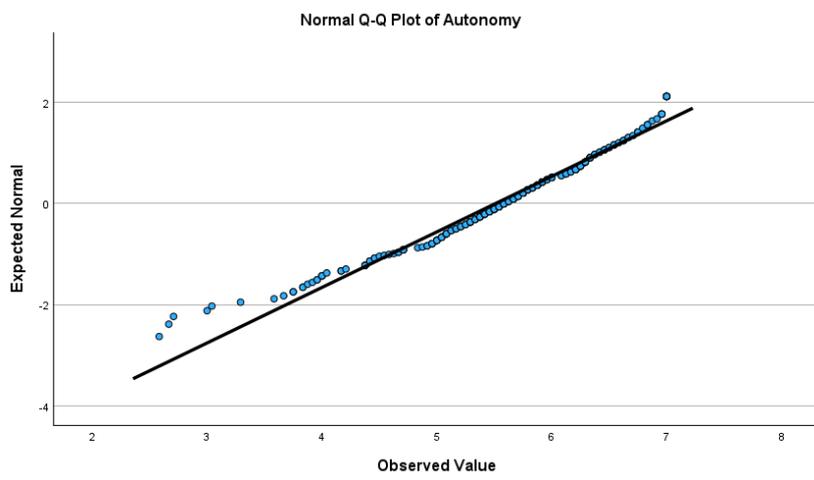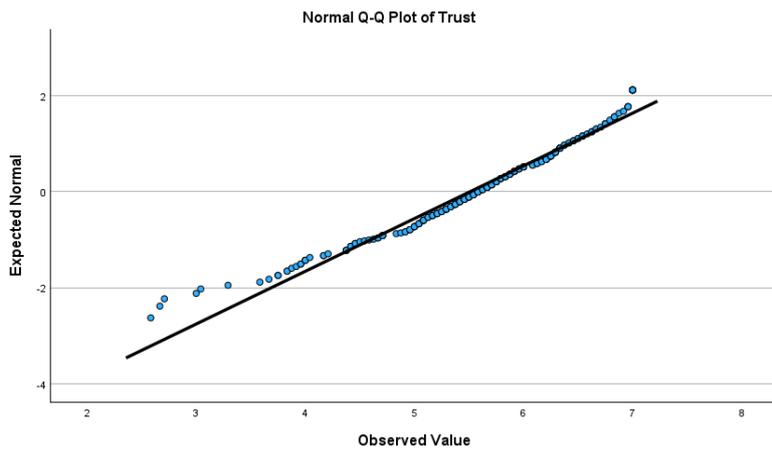
Annex 8. Regression Analysis for H1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.438[a]	.192	.188	.685
a. Predictors: (Constant), Virtual_Leadership				

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.949	1	25.949	55.292	<.001[b]
	Residual	109.348	233	.469		
	Total	135.297	234			
a. Dependent Variable: Employee_Retention						
b. Predictors: (Constant), Virtual_Leadership						

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.189	.281		4.229	<.001	.635	1.743
	Virtual_Leadership	.541	.073	.438	7.436	<.001	.398	.685
a. Dependent Variable: Employee_Retention								

Annex 9. Correlation Analysis

<table>
<tr><th colspan="7">Correlations</th></tr>
<tr><th></th><th></th><th>Virtual_Leadership</th><th>Team_Cohesion</th><th>Trust</th><th>Autonomy</th><th>Employee_Retention</th></tr>
<tr><td rowspan="3">Virtual_Leadership</td><td>Pearson Correlation</td><td>1</td><td>.605***</td><td>.729***</td><td>.312***</td><td>.438***</td></tr>
<tr><td>Sig. (2-tailed)</td><td></td><td><.001</td><td><.001</td><td><.001</td><td><.001</td></tr>
<tr><td>N</td><td>235</td><td>235</td><td>235</td><td>235</td><td>235</td></tr>
<tr><td rowspan="3">Team_Cohesion</td><td>Pearson Correlation</td><td>.605***</td><td>1</td><td>.742***</td><td>.278***</td><td>.426***</td></tr>
<tr><td>Sig. (2-tailed)</td><td><.001</td><td></td><td><.001</td><td><.001</td><td><.001</td></tr>
<tr><td>N</td><td>235</td><td>235</td><td>235</td><td>235</td><td>235</td></tr>
<tr><td rowspan="3">Trust</td><td>Pearson Correlation</td><td>.729***</td><td>.742***</td><td>1</td><td>.404***</td><td>.519***</td></tr>
<tr><td>Sig. (2-tailed)</td><td><.001</td><td><.001</td><td></td><td><.001</td><td><.001</td></tr>
<tr><td>N</td><td>235</td><td>235</td><td>235</td><td>235</td><td>235</td></tr>
<tr><td rowspan="3">Autonomy</td><td>Pearson Correlation</td><td>.312***</td><td>.278***</td><td>.404***</td><td>1</td><td>.366***</td></tr>
<tr><td>Sig. (2-tailed)</td><td><.001</td><td><.001</td><td><.001</td><td></td><td><.001</td></tr>
<tr><td>N</td><td>235</td><td>235</td><td>235</td><td>235</td><td>235</td></tr>
<tr><td rowspan="3">Employee_Retention</td><td>Pearson Correlation</td><td>.438***</td><td>.426***</td><td>.519***</td><td>.366***</td><td>1</td></tr>
<tr><td>Sig. (2-tailed)</td><td><.001</td><td><.001</td><td><.001</td><td><.001</td><td></td></tr>
<tr><td>N</td><td>235</td><td>235</td><td>235</td><td>235</td><td>235</td></tr>
<tr><td colspan="7">***. Correlation at 0.001(2-tailed)</td></tr>
</table>

Annex 10. Moderation Analysis Model 4 (Hayes, 2022) for H2

```
Run MATRIX procedure:


Copyright 2013-2025 by Andrew F. Hayes. ALL RIGHTS RESERVED.
This version of PROCESS requires SPSS version 26 or later
Workshop schedule available at haskayne.ucalgary.ca/CCRAM
In SPSS 29 and later, change default output font to Courier New for tidier
output. More information about PROCESS at processmacro.org/faq.html.
This beta release has not been completely tested. Use at your own risk.




***************** PROCESS Procedure for SPSS Version 5.0 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

*************************************************************************
  Model: 4
      Y: Retent
      X: VLead
      M: Cohes

Sample
Size:  235

*************************************************************************

OUTCOME VARIABLE:
 Cohes

Model Summary
         R       R-sq       MSE         F       df1       df2         p
     .6047      .3656      .2291  134.2884    1.0000  233.0000      .0000

Model
            coeff        se         t         p      LLCI      ULCI
constant   1.5613      .1964    7.9492      .0000    1.1744    1.9483
VLead       .5894      .0509   11.5883      .0000     .4892     .6897


*************************************************************************

OUTCOME VARIABLE:
 Retent

Model Summary
         R       R-sq       MSE         F       df1       df2         p
     .4824      .2327      .4475   35.1869    2.0000  232.0000      .0000

Model
            coeff        se         t         p      LLCI      ULCI
constant    .6857      .3095    2.2157      .0277     .0760    1.2955
VLead       .3514      .0893    3.9378      .0001     .1756     .5273
Cohes       .3222      .0916    3.5187      .0005     .1418     .5025



***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
    Effect        se         t         p      LLCI      ULCI
     .3514      .0893    3.9378      .0001     .1756     .5273

Indirect effect(s) of X on Y:
          Effect    BootSE  BootLLCI  BootULCI
Cohes      .1899     .0652     .0703     .3277

*************************************************************************
Bootstrap estimates were saved to a file

Map of column names to model coefficients:
         Conseqnt Antecdnt
COL1     Cohes    constant
COL2     Cohes    VLead
COL3     Retent   constant
COL4     Retent   VLead
COL5     Retent   Cohes

********************** ANALYSIS NOTES AND ERRORS **********************

Level of confidence for all confidence intervals in output:
  95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

------ END MATRIX -----
```

Annex 11. Moderation Analysis Model 1 (Hayes, 2022) for H3

```
Run MATRIX procedure:

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This version of PROCESS requires SPSS version 26 or later
Workshop schedule available at haskayne.ucalgary.ca/CCRAM
In SPSS 29 and later, change default output font to Courier New for tidier
output. More information about PROCESS at processmacro.org/faq.html.
This beta release has not been completely tested. Use at your own risk.



*************** PROCESS Procedure for SPSS Version 5.0 ****************

        Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

*********************************************************************
  Model: 1
      Y: Cohes
      X: VLead
      W: Trust

Sample
Size: 235

*********************************************************************

OUTCOME VARIABLE:
 Cohes

Model Summary
        R        R-sq        MSE          F        df1        df2          p
     .7477       .5591      .1606    97.6490     3.0000   231.0000      .0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     3.8107       .0297   128.4085      .0000     3.7522     3.8692
VLead         .1311       .0629     2.0850      .0382      .0072      .2549
Trust         .4232       .0423     9.9984      .0000      .3398      .5066
Int_1        -.0054       .0346     -.1556      .8765     -.0735      .0627


Product terms key:
 Int_1    :         VLead      x        Trust

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W       .0000      .0242     1.0000   231.0000      .8765
----------
    Focal predict: VLead    (X)
          Mod var: Trust    (W)

Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/
   VLead     Trust      Cohes      .
BEGIN DATA.
     -.6054    -.8951     3.3496
      .0153    -.8951     3.4339
      .6360    -.8951     3.5183
     -.6054     .0732     3.7626
      .0153     .0732     3.8437
      .6360     .0732     3.9248
     -.6054     .8749     4.1045
      .0153     .8749     4.1829
      .6360     .8749     4.2613
END DATA.
GRAPH/SCATTERPLOT=
 VLead    WITH    Cohes    BY      Trust    .

*********************** ANALYSIS NOTES AND ERRORS ***********************

Level of confidence for all confidence intervals in output:
  95.0000

NOTE: The following variables were mean centered prior to analysis:
        Trust    VLead

------ END MATRIX -----
```

Annex 12. Moderation Analysis Model 1 (Hayes, 2022) for H4

```
Run MATRIX procedure:


Copyright 2013-2025 by Andrew F. Hayes. ALL RIGHTS RESERVED.
This version of PROCESS requires SPSS version 26 or later
Workshop schedule available at haskayne.ucalgary.ca/CCRAM
In SPSS 29 and later, change default output font to Courier New for tidier
output. More information about PROCESS at processmacro.org/faq.html.
This beta release has not been completely tested. Use at your own risk.




***************** PROCESS Procedure for SPSS Version 5.0 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
     Documentation available in Hayes (2022). www.guilford.com/p/hayes3


*************************************************************************
  Model: 1
      Y: Retent
      X: Cohes
      W: Autonom

Sample
Size:  235


*************************************************************************

OUTCOME VARIABLE:
 Retent

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .5262      .2769      .4235    29.4842     3.0000   231.0000      .0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    3.2251      .0486    66.3531      .0000     3.1294     3.3209
Cohes        .1392      .1077     1.2931      .1973     -.0729      .3513
Autonom      .3850      .0701     5.4891      .0000      .2468      .5232
Int_1        .0678      .0588     1.1548      .2494     -.0479      .1836

Product terms key:
 Int_1   :        Cohes    x        Autonom

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      .0042     1.3336     1.0000   231.0000      .2494
----------
    Focal predict: Cohes    (X)
          Mod var: Autonom  (W)

Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/
   Cohes     Autonom    Retent     .
BEGIN DATA.
      -.5777     -.8951     2.8352
      -.0393     -.8951     2.8775
       .5761     -.8951     2.9257
      -.5777      .0732     3.1700
      -.0393      .0732     3.2477
       .5761      .0732     3.3364
      -.5777      .8749     3.4473
      -.0393      .8749     3.5542
       .5761      .8749     3.6764
END DATA.
GRAPH/SCATTERPLOT=
 Cohes    WITH     Retent   BY      Autonom  .

*********************** ANALYSIS NOTES AND ERRORS ***********************

Level of confidence for all confidence intervals in output:
  95.0000


NOTE: The following variables were mean centered prior to analysis:
          Autonom  Cohes

------ END MATRIX -----
```