

THESIS OF THE DOCTORAL (PhD) DISSERTATION

AGILE MANAGEMENT CONCEPT IN IMPROVEMENT OF IT ORGANIZATION'S PROCESSES

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1. INTRODUCTION

The modern workplace has evolved significantly due to rapid technological advancements, changing organisational structures, and the growing prevalence of remote work. These changes have created opportunities and challenges for fostering a positive work environment, particularly concerning trust and workplace bullying, which significantly impact employee well-being and overall organisational health. These variables interact in various work contexts.

The rise of remote work has introduced new dimensions to workplace interactions. One of the advantages of remote work is increased flexibility and work-life balance; however, challenges include communication barriers and feelings of isolation. This shows a different pattern from the usual on-site workplace bullying, which is characterised by repetitive verbal, social or psychological mistreatment of one or more employees.

Agile methodologies have gained widespread adoption across various industries with practices designed to enhance flexibility. However, their influence extends beyond that to change organisation culture and how they deal with various challenges.

Uncertainty in product development can be a threat or an opportunity. Complete control over uncertainty seems impossible (Dönmez and Grote, 2018a), as IT business requirements are constantly changing fast, with a highly competitive market. The work of software development teams is very uncertain. It is crucial for project performance and affects many decisions (Na *et al.*, 2004). Uncertainty can come from multiple sources and affect all software development cycles, leading to difficulty managing it (Stamelos and Angelis, 2001). It also can lead to the development of extra unneeded features, reduced product quality, delayed delivery time, or customer dissatisfaction. Due to the high costs, software development teams must pay attention to them. (Ibrahim *et al.*, 2009)

There are many types of uncertainty in software development that can include but are not limited to program behaviour, undefined variables, values or names, and uncertain program defects. Some significant defects are considered unavoidable uncertainties that need an immediate fix, while other minor bugs can be ignored. (Ubayashi, Kamei and Sato, 2019)

Ignored uncertainty can be a real danger. It can cause project failure. Therefore, managers should know its sources (Marinho *et al.*, 2014) and have the proper techniques to address them. Teams can manage uncertainty using different methods, including investigating uncertain

issues (therefore, uncertainty reduction or shifting it to another matter), intentionally ignoring uncertainty, or increasing it. (Grote, 2015)

However, it can be managed effectively by team collaboration and uncertainty-focused approaches such as Agile (Perminova, Gustafsson and Wikström, 2008). An agile mindset can be used to mitigate threats. Nevertheless, since uncertainty does not only include threats, it is vital to have the correct mindset in dealing with uncertainty to seize opportunities. When uncertainty is usually mentioned in the literature, it is mainly considered a negative effect on any project. Therefore, using different approaches to manage uncertainty is essential, as we cannot just claim that uncertainty is bad or good. However, all agree on its effect in defining that project's success or failure, Although only a few acknowledge this dual nature of uncertainty. However, it is essential to mention the bright side of uncertainty by encouraging innovation Field. (Jalonen, 2011; Marinho *et al.*, 2014)

Many MCDM methods and tools were used to manage uncertainty, such as the fuzzy linguistic approach (Tseng, 2011). The author has tested a new approach using an integrated AHP and QFD. The model was tested within its maximum limit by selecting sixteen technical parameters and considering fifteen variables for the software requirements. Stakeholders were highly involved when making decisions, and their decision consistency was calculated to make sure the best CRM software was selected. (al jafa, 2020a)

The model was designed with ten comprehensive steps, which included defining the problem and the goal, defining the customer's needs, starting with the Quality function development (QFD) model and finally making the decision using the Analytic hierarchy process (AHP). (al jafa, 2020b) As a result, although this method proved to be efficient in breaking down significant complex issues into smaller, manageable ones, using this method can be time-consuming and require many team members. Therefore, better ways have been studied to address the issue, testing its effectiveness in the new shift to remote work.

In a fast-changing market, an economic profit can only be made with an existing uncertainty (Hicks, 1931). Otherwise, it would be wasted, allowing the risk to grow and the opportunity to be lost. However, this high uncertainty must be addressed in software and product innovation projects. (Paixao and Souza, 2015)

A study focused on improving practices used to deal with uncertainty done by (Dönmez and Grote, 2018b). The study concludes that when teams are aware of the type of uncertainty they

face, they can act accordingly, whether it is a threat or an opportunity. It suggests that Agile methods help deal with threats while allowing teams to remain open to new opportunities.

Agile is a multifaceted concept encompassing a mindset and methodology. Each organisation selects an adoption plan based on its leadership style. Agile methods support the agile philosophy, i.e., agile values and principles. Each Agile method consists of a different combination of practices, describing how the software developer does the day-to-day work. Each method differs from the other by choosing its appropriate set of terminology and practices. (Alsaqqa, Sawalha and Abdel-Nabi, 2020)

Agile methods are a set of software development methodologies that prioritise flexibility and adaptability. They are characterised by their ability to handle situations on the go without the need for extensive prior planning (Manchanda *et al.*, 2017). Two popular methods in the software industry are eXtreme Programming and Scrum. (Maurer and Melnik, 2006)

According to (Mordi and Schoop, 2020), the Agile Manifesto's values and principles form the foundation of the Agile Mindset. It is defined by openness, flexibility, trust, accountability, ownership, and a commitment to continuous improvement. Certain character traits and an atmosphere that fosters autonomy for individuals and groups, manages uncertainty, and prioritises customer value all promote this way of thinking. Being agile is the desired condition instead of just practising agility. (Ozkan and Gok, 2020)

Applying Agile has a direct positive impact on trust, knowledge sharing and collaboration. It also encourages a transparent communication culture (Ram* and Vijayakumar, 2019), where any offence would be surfaced and be directly dealt with. In addition, Ram and Vijayakumar mentioned the effect of applying Agile to create self-managing teams who can take ownership of their work and embrace a trust culture which prevents the need for micromanagement. Therefore, less workplace bullying would be encountered. Trust is an essential part of adopting an Agile mindset. It is presented in the Agile manifesto principle in empowering Self-organizing Teams (Fowler and Highsmith, 2001). Agile organisations should provide teams the necessary trust by empowering them to act without hesitation (Meyer, 2014). This relation was tested later, and a direct link between the growth in trust led to the rise of team effectiveness. (Akkaya and Bagieńska, 2022)

While Agile methodology applied in software development can help deal with uncertainty, it is not directly related to preventing workplace bullying. However, applying Agile principles has a direct effect on reducing workplace bullying. Moreover, with Agile being implemented in

many other departments and the new Agile HR, Agile HR can help prevent workplace bullying by fostering a culture of mutual respect, collaboration, accountability, learnability, design work-teams oriented, and practices oriented to empower workers (Junita, 2021). Organisations can create a more collaborative and communicative work environment (Al Jafa, Jihad and Várallyai, 2022), which may help to prevent workplace bullying. Organisations must adopt best practices for preventing workplace bullying, regardless of their project management approach.

The (Al Jafa, Jihad and Várallyai, 2022) study explored the role of HR in the Agile company transition, focusing on the environmental change and how different HRM models can help select the best tools that can benefit the organisation and not harm it.

This study explores the relationship between Agile implementation, the first principle of building trust, and workplace bullying in IT companies. Although no direct studies have been found on this relationship, previous research has investigated the link between workplace bullying and stressful working environments caused by unrealistic deadlines and micromanagement. (Johan Hauge, Skogstad and Einarsen, 2007) Conducted a study on 2539 employees in Norway and found that chances to have workplace bullying are greater in stressful workplaces characterised by damaging approaches to leadership. Another study by (Elsayed-El and Abdelwahid, 2020) discovered a strong positive relationship between authentic leadership behaviours and workplace trust. Moreover, workplace trust and authentic leadership were negatively and significantly correlated with workplace bullying. These findings underscore the negative impact of workplace bullying on employee well-being and productivity. These findings suggest that applying the Agile mindset in companies that embrace building trust is essential in preventing workplace bullying and promoting a healthy and productive work environment. The results of previous research, combined with the lack of direct studies on the relationship between Agile implementation and workplace bullying, highlight the necessity of further research in this area. Such a study can help organisations foster a safe and productive workplace environment.

The study utilises surveys and interviews to provide practical recommendations for organisations. Suggesting that promoting a workplace culture focused on trust and the Agile mindset can prevent workplace bullying and create a healthy work environment for both remote and on-site settings.

2. RESEARCH OBJECTIVES AND HYPOTHESES

2.1. Aims and Questions of The Research

This research investigates the impact of implementing an Agile management mindset on workplace bullying and abuse. The research objectives are to test hypotheses H1, H2, H3, H4, and H5 and to identify the correlation between implementing Agile Management and trust levels within the organisation. The study explores the relationship between Agile's first principle and its impact on building trust in Human Resources to prevent workplace bullying and exploitation. Additionally, the research will investigate whether transitioning to remote work creates new opportunities for workplace bullying that differ from those in traditional office settings and whether remote workers advocate for equal rights with office workers.

The Objectives of The Research

1. To investigate the perceived impact of implementing Agile methodology on employee trust in IT organisations.
2. To examine the relationship between organisational trust levels and workplace bullying and abuse incidences.
3. To evaluate the effectiveness of Agile management in preventing workplace bullying and abuse within IT organisations.
4. To compare and contrast the communication challenges and prevalence of work abuse between remote work and traditional office settings, and to investigate if there are significant differences in the severity of workplace bullying and exploitation among project-based and hourly freelance workers.
5. To identify the factors contributing to lower satisfaction among remote workers with existing labour regulations regarding worker protection, particularly concerning measures aimed at preventing workplace bullying.

Overall objective:

This research will test five hypotheses to investigate the relationship between Agile management implementation, remote work, and workplace bullying and abuse. The research findings will provide insights into ways organisations can adopt Agile management principles to improve IT companies' processes and reduce workplace bullying and abuse.

Based on the objectives of this research, the following research questions were formed:

1. How does the implementation of Agile methodologies within IT organisations impact the levels of trust among employees?
2. What is the association between organisational trust levels and the occurrence of workplace bullying and abuse?
3. To what extent does the adoption of Agile methodologies within IT organisations contribute to the prevention of workplace bullying and abuse?
4. What are the distinct challenges in communication and experiences of work abuse faced by remote workers compared to those in traditional office settings? Additionally, is there a significant difference between project-based and hourly freelance workers' severity of workplace bullying and exploitation?
5. What factors contribute to the lower satisfaction of remote workers with existing labour regulations regarding worker protection, particularly concerning measures aimed at preventing workplace bullying?

2.2. Research Hypotheses

The research began with a literature review that was introduced at the beginning and expanded in the following chapters. The review aimed to identify existing literature relationships studied by other scholars. After conducting the review, a research gap was identified, indicating no other research had been conducted in this area. This supported the novelty of the conducted research. Once five variables were extracted, a set of five hypotheses were formulated. Through this process, certain relationships were discovered and illustrated in Figure 1. After extracting 5 variables, we formulated a set of 6 hypotheses, which is summarised in Figure 2.

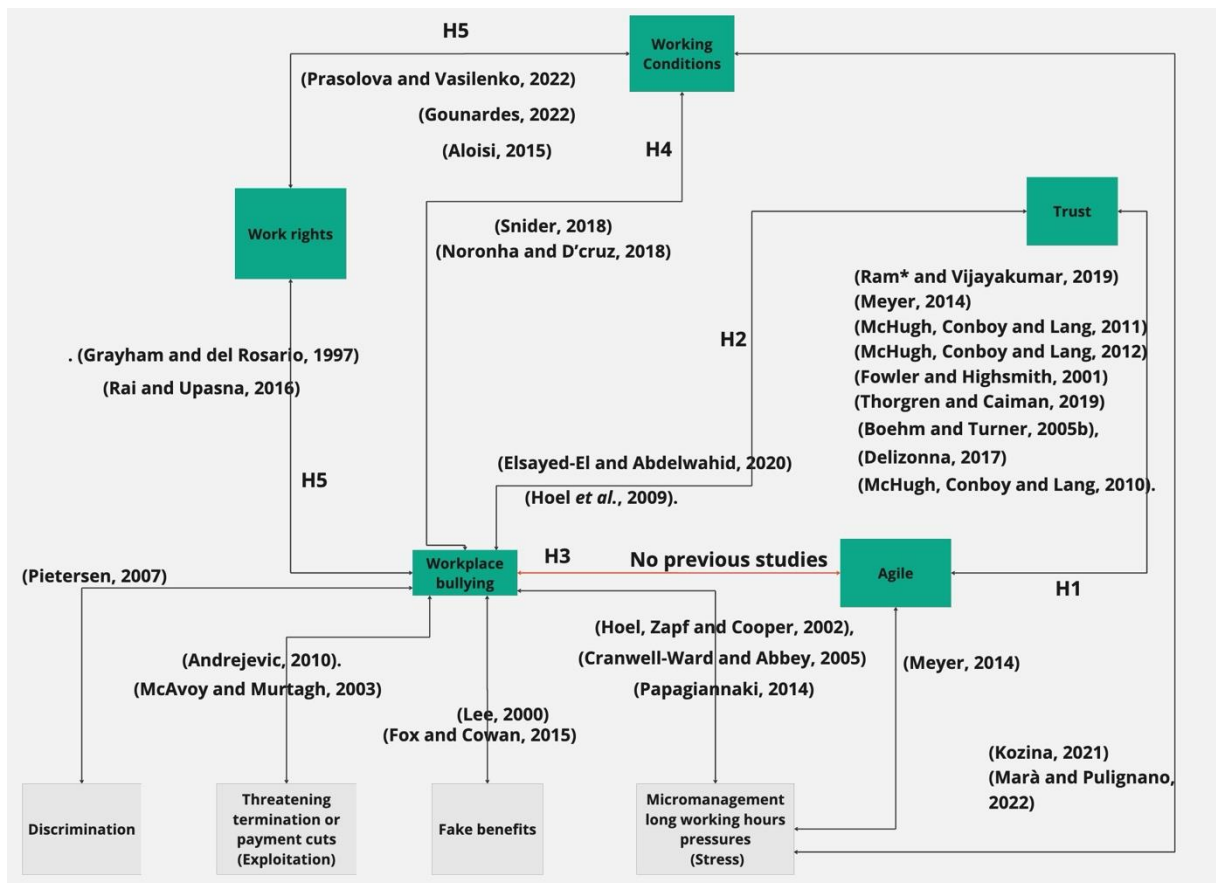


Figure 1 Model created based on literature review

The previous literature review analysis suggests a logical theoretical relationship between workplace bullying and Agile, as mentioned in the literature review. However, with the lack of studies measuring this relationship, this research investigates the impact of implementing Agile management on workplace bullying and abuse. The formulated hypotheses studied in the research using SmartPLS which are shown in Fig.1:

H1: Implementing Agile methodologies in IT organisations will increase employee trust.

H2: Increased organisational trust levels result in lower workplace bullying and abuse incidences.

H3: Implementing Agile methodologies in IT organisations will prevent workplace bullying and abuse.

H4: Remote work poses distinct challenges for communication and work abuse compared to traditional offices, but there's no significant difference in the severity of workplace bullying and exploitation between project-based and hourly freelance workers.

H5: Remote workers report lower satisfaction with existing labour regulations regarding worker protection compared to on-site workers, especially regarding the measures to prevent workplace bullying.

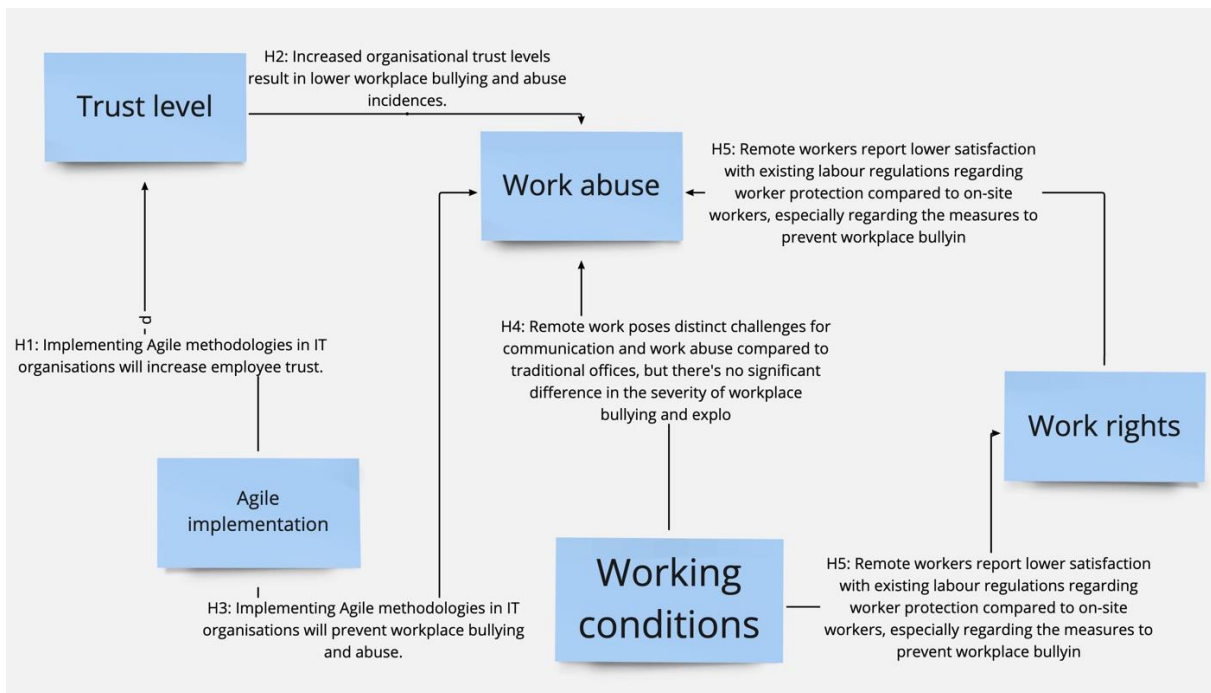


Figure 2: Hypothesis detailed overview

Source: based on Own work

This chapter aims to provide an overview of the methodology used in this dissertation, specifically the methods employed for data collection to test the five hypotheses generated through analysis. As noted by (Bailey, Marshall and Rossman, 1996), research methodology typically begins by establishing the study's objectives, selecting an appropriate study design and identifying the optimal method for data collection.

3. METHODOLOGY

This chapter aims to provide an overview of the methodology used in this dissertation, specifically the methods employed for data collection to test the five hypotheses generated through analysis. As noted by (Bailey, Marshall and Rossman, 1996), research methodology typically begins by establishing the study's objectives, selecting an appropriate study design and identifying the optimal method for data collection.

3.1. Research Design

Research can be classified into three categories: descriptive (evaluative) and explanatory (causal). Evaluative research aims to find out how well something works. Evaluative research in business and management will likely assess the effectiveness of an organisational or business strategy, policy, programme, initiative, or process. (Powell, 2006; N. K. Saunders, Lewis and Thornhill, 2015)

The research design is a descriptive and explanatory research study incorporating a combined method using quantitative design and survey methodology to collect data from a sample of IT workers who work as freelance software developers, in addition to qualitative design done through interviews with IT workers to gather insights from remote workers. The study aims to test five hypotheses structurally using SmartPLS, correlation analysis, chi-squared test, logistic regression analysis, adjusted p-values, data analysis, visualisation, Pearson's correlation coefficient, regression analysis, and ANOVA. The statistical analyses employed, including the Smart-PLS model, regression analysis correlation and other statistical models, were selected for their robustness and adherence to established principles, ensuring the validity and reliability of the research findings. (Hair *et al.*, 2019). The study population was defined using LinkedIn, and unrelated accounts were excluded using Boolean Search. The survey was distributed randomly to 200 accounts, and the response rate was 54.5%. The survey was offered in English and Hungarian; most responses were in English. Additionally, 20 questions were formulated for the qualitative design to guide the interview using open-ended questions, allowing the interviewer to direct the conversation. The survey was distributed online to participants working remotely as freelancers on project-based or full-time hourly paid-in IT companies. In this cross-sectional study, data collection occurred between 2021 and 2022, capturing experiences one year after the emergence of COVID-19. This timeframe indicates that the pandemic can affect

results. The freelancers were recruited from various online forums and social media platforms, and though they lived in Hungary, they worked for companies from around the world.

To test the hypotheses, this study will use different statistical analyses depending on the hypothesis, including correlation analysis, chi-squared test, logistic regression analysis, adjusted p-values, data analysis, visualisation, Pearson's correlation coefficient, regression analysis, and ANOVA. These analyses will help identify the relationship between variables and provide evidence for or against the hypotheses.

A qualitative approach is commonly employed to gain deeper insight into individuals' underlying reasons or perspectives in specific situations without relying on numerical data. This method can be particularly useful in exploring complex and nuanced subject matter and provide valuable context to inform decision-making processes.

Overall, the study is well-designed and appropriate for investigating the link between workplace bullying, Agile implementation and trust among freelance software developers in Hungary and the Netherlands working for international companies worldwide. Using survey methodology and different statistical analyses will allow for a thorough investigation of the research questions and hypotheses.

3.2. Research Methodology

This section delineates the classification and structure of the study following the aims of causal research, which entails identifying cause and effect variables and exploring their relationship. The study employs a quantitative explanatory approach, incorporating a mixed-method quantitative and qualitative design that relies on a two-data collection technique - the questionnaire, coupled with an appropriate quantitative analytical procedure. A mixed-method quantitative design was chosen for its ability to address specific research questions effectively (Creswell J. David and Creswell John W., 2017). The study aims to gather the opinions and perceptions of remote workers in the IT industry. Qualitative research methods will be used to achieve this, including interviews and literature review. The research will follow an interpretivism philosophy, which means that it will try to understand participants' subjective experiences and perceptions. Thematic analysis will be employed to identify patterns, themes, and meanings within the data, making it possible to explore the research topic in a comprehensive and systematic manner. One-to-one interviews will be conducted in an abstract format without the potential to be expressed in a quantitative format. The gathered insights will

provide valuable information for further analysis and decision-making. In addition, the study combines descriptive, exploratory and evaluative research. The exploratory study investigates the existence of work bullying and abuse in Agile organisations that seek to empower teams through a survey. At the same time, the evaluative research tests the effectiveness of Agile techniques in combating workplace bullying and fostering trust. The purpose of evaluative research in business and management is to assess the efficiency of an organisational or business strategy, policy, initiative or process, and a goal that aligns with the aims of this study.

This study investigates the relationship between Agile implementation, workplace bullying and remote work environment exploitation. A literature review was conducted first, followed by a survey to collect primary data. The interviews were conducted with 12 IT workers. The research also aims to investigate the impact of implementing an Agile management mindset on workplace bullying and abuse in the IT industry. The research objectives are to test hypotheses H1, H2, H3, and H5.

The quantitative data for this study were collected using a survey method. The survey was designed using Google Forms and distributed randomly using the LinkedIn platform to 200 IT professionals with experience working as freelancers for companies around the world and who lived or lived in the past in Hungary. The respondents answered without mentioning their names or emails, and a consent form was created following confidentiality standards at the University of Debrecen. There wasn't any uncompleted questionnaire submission because the unfinished survey won't be saved. The sample size was determined by using the population size obtained from LinkedIn, which included 904 accounts of people who work or previously worked in the IT sector as software developers, software architects, or software testers. The survey was offered in two languages, English and Hungarian, to maximise the response rate.

According to (Bell and Bryman, 2019), the most suitable way to investigate the existing research and knowledge in an area is by doing a literature review. It directs the research and is considered an appropriate way to improve the researcher's understanding of the topic and concepts in the specified research area.

A literature review is suitable for investigating existing research and knowledge in a particular area. Two types of scientific literature review were utilised: a narrative review and a systematic review. The narrative review critically analysed the literature relevant to Agile HR practices, workplace bullying, and exploitation. The systematic review, on the other hand, was used to answer specific research questions by examining the methodology to identify, select, and

evaluate study results. This type of review is more suitable for quantitative research. (Bell and Bryman, 2019)

The Scopus, ScienceDirect, and Google Scholar databases were utilised in the literature review. The search used relevant keywords, including Agile E-HRM, HRIS, EHRM, Agile HR, Agile, MCDM methods, workplace bullying, and uncertainty. The search was restricted to outcomes connected to management and IT, as well as the twenty years from 2000 to 2021. The results consisted of journals, books, and websites. The next step was to filter the relevance of the candidate studies and professional articles published in the Agile community. All candidate studies were systematically analysed to choose the studies that were most directly related to the research topic.

After the literature review, a survey was designed to collect primary data for quantitative analysis. The survey examined the relationship between employees' trust in the Agile mindset built-in teams and the possibility of workplace bullying and exploitation in a remote working environment. Later, 20 Questions were formulated for the qualitative interviews to get more understanding; the final step will be evaluating and analysing the collected data and supporting it with the previously reviewed literature.

In Figure 6, you can see how the variables are associated with the survey questions. Table 14 categorises the questions and shows how they relate to measuring the hypothesis. It also identifies each question's dependent and independent variables and connects them directly to the survey questions.

The author used the Smart-PLS model to analyse the data. The model effectively deals with the high degree of multicollinearity present in the complex model that the author presented in Figure 7. This is because the model can effectively analyse multiple variables affecting each node using Partial Least Squares. The model is designed to evaluate the correlation between five different variables. These variables are not isolated and are interrelated, with each variable affecting the others in some way. The letters used in the model represent the different questions asked to test each variable's value. By analysing the answers to these questions, we can identify the strength and direction of the relationships between the variables. This information is critical for making informed decisions and taking appropriate actions to achieve our goals.

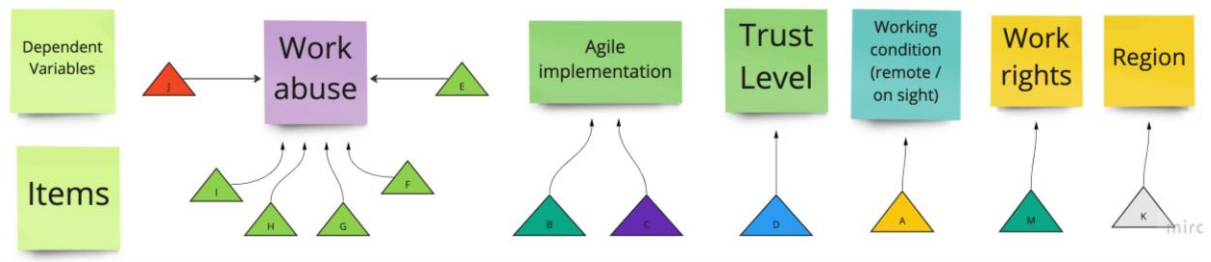


Figure 3: Variables and question items relation

Source: based on Own work

Figure 7 shows the preliminary research plan before applying SmartPLS. Later, two actual SmartPLS models were implemented, shown in Figure 22 and Figure 23. The objective was to find relationships between variables and questions and identify existing connections. Detailed explanations of these connections can be found later in Table 14 in the appendix. The purpose of this figure is to illustrate the variables being tested and the expected direction of their relationships, whether positive or negative, along with the questions which measure each variable.

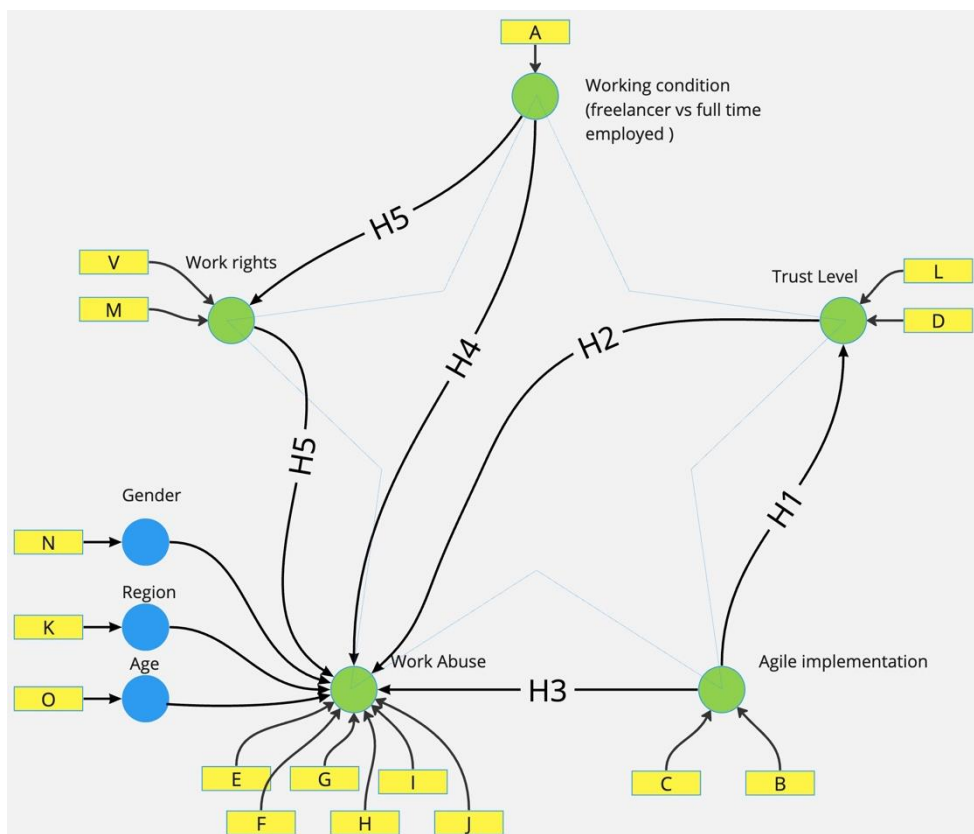


Figure 4: Structural Hypothesis Proposed Model

Source: based on Own work

3.3. Population and Sampling

This study examines the workplace bullying of remote workers who are living in Europe, specifically in Hungary and the Netherlands. Moreover, since freelancers are considered independent contractors, most outsourced freelanced work contracts are not regulated by law or monitored by governments or work chambers. Unlike a typical office job because the labour law directives did not affect the employment rights of independent contractors (self-employed) and economically dependent workers (formally self-employed) (Gyulavári, 2014). (Tamás, 2009) reported the crises and the grey zone that exists in the labour law concerning self-employment, where employees are not entitled to labour law protection.

The study sample was identified to include IT workers who specifically live in Hungary and the Netherlands but work remotely for international companies worldwide. With the lack of data, research or an official number of freelancers who work only in software development in Hungary, the population number has been defined by the use of the popular social networking service used for professional networking, LinkedIn. Using the following keywords: freelance software developer, or freelance web developer, the results showed the same number of profiles using both keywords (1500 accounts). It included people working or previously working as a freelancer in software development. By skimming a sample of results that had 100 accounts, many accounts were found to be included in the results, such as the IT consultants, researchers, concept developers, and some other accounts that were not related. Using the Boolean Search on LinkedIn (LinkedIn, 2021) to exclude unrelated accounts using NOT, by writing the following: freelance software developer NOT consultant NOT manager NOT researcher, the results were shrunk to 904 accounts representing the population of the PhD study.

The survey has been sent to 200 accounts using private messages on LinkedIn. The response rate was 54.5%. The survey has been offered in two languages: English and Hungarian, the number of Hungarian language respondents was 29, and 80 responses were in English. For most academic studies involving individuals or organisations' representatives, response rates of approximately 50 per cent and 35 to 40 per cent, respectively, are reasonable. (Baruch and Holtom, 2008)

Using sample calculations, the next step in the research is to find whether this sample is representative and if there will be a need to share the survey with more people from the population.

Data Analysis: The data collected from the survey were analysed using various statistical tools to test the hypotheses. Correlation analysis was used for H1, H2, H3, and H5 to determine the relationship between the variables. Data Analysis and Visualization were used to test H1, H2, H4, and H5. For H3, chi-squared test, logistic regression analysis, and adjusted p-values using Bonferroni, The Holm-Bonferroni, and The False Discovery Rate (FDR) correction were used to determine the significance of the relationship between implementing Agile management and workplace bullying and abuse.

For H5, correlation analysis, a chi-squared test, and a logistic regression analysis were used to investigate whether better remote work regulations for freelancers would help reduce work abuse by establishing the same standards as traditional office work.

Using a survey method allowed the researchers to collect data from a sample of IT professionals with experience working as freelancers for worldwide companies but who are currently residents in Hungary. The data were analysed using Excel and Python to test the hypotheses, and the results were used to investigate the impact of implementing an Agile management mindset on workplace bullying and abuse in the IT industry in Hungary and the Netherlands.

3.4. Qualitative Research Approach

Interviews: The one-to-one interview is a commonly used technique in qualitative research. It is a valuable tool for gaining insight into people's perceptions and experiences. The interviewer must possess the necessary skills and knowledge to conduct such an interview effectively (Ryan, Coughlan and Cronin, 2009). This method is particularly useful during the exploratory phase of research. Practical tips for preparing and conducting one-on-one qualitative interviews were taken from (Stofer, 2019). The snowball sampling technique will be used to recruit participants from the target population of migrants and freelancers working remotely in Hungary and The Netherlands. Snowball sampling is particularly useful for accessing hidden or sensitive populations (Browne, 2005).

The informed consent form will be used to obtain ethical approval for the study, and the survey questions will cover the following areas:

- Region of origin
- Age
- Languages spoken

- Specialisation or field of work/study
- Perception of the work environment.
- Agile knowledge and experience working in Agile.
- Experiences of workplace bullying and discrimination, including examples
- Rules and regulations at the organisations.

The research findings will contribute to a better understanding of the challenges faced by freelancers working remotely and provide insights into ways to improve their working conditions and integration into society.

This study aims to examine the obstacles that remote freelancers encounter working in international companies worldwide. The research will focus on their difficulties in finding job opportunities and potential workplace bullying and discrimination. The participants in the study are individuals who currently work or have worked in the IT industry as either full-time employees or freelancers. The interviews were conducted over the course of 2023.

In addition, some freelancers have relocated to other EU countries and worked for global organizations, making their insights valuable in comprehending the circumstances around remote work and how workplace bullying can occur. As part of this study, you have been invited to participate in an interview. The interview will last for approximately 60 minutes and cover topics such as your background, work environment, experiences of workplace bullying and discrimination, and their impact on your integration process. The interview will be conducted by a researcher either online or in person, and the data collected will be kept confidential.

It's important to note that all interviews were conducted in a non-anonymous manner, but without identifying the participants or their employers. This approach was taken to ensure that participants could express their opinions on the topic without any concern for confidentiality. As per the ISA ethical code, researchers are required to maintain the confidentiality of personal information sources unless participants have given permission or expressed a desire to be acknowledged, as outlined in (Alasuutari, Brannen and Bickman, 2008). Before participating in the research, participants received a consent form.

Interview Structure: According to (Doody and Noonan, 2013; Jain, 2021), semi-structured interviews are an appropriate method for collecting data in exploratory research. This approach provides a comprehensive understanding of the research subject within a structured questionnaire framework while allowing for the collection of detailed information pertinent to

research questions. It also allows researchers to modify questions based on respondents' answers to ensure clarity. (Brew, 2007) adds that the autonomy of researchers in making these decisions is a key aspect of academic freedom. (Holmboe, 2018) emphasises the value of academic freedom in this context, particularly in discussing sensitive topics.

Data Analysis: Thematic analysis is used, which is a popular qualitative data analysis method that enables researchers to identify patterns, themes, and meanings within textual data. The key steps in thematic analysis include several stages:

1. Researchers gain a comprehensive understanding of the content through repeated readings.
2. Researchers systematically identify and label relevant data segments, capturing key concepts, ideas, and phenomena.
3. Codes are grouped together based on similarities and differences, leading to the identification of overarching themes that represent patterns within the data.
4. Themes are refined iteratively to capture accurate data content and meaning.
5. Themes are clearly defined and labeled, meaningfully representing the data and its underlying patterns.
6. The thematic analysis findings are synthesised and interpreted to highlight the themes' significance in relation to research.

Thematic analysis is a methodical and adaptable approach to examining qualitative data. It enables researchers to uncover intricate relationships, perspectives, and insights. In this study, we will utilise thematic analysis to delve into participants' experiences, perceptions, and interactions regarding Agile practices and workplace bullying in remote working environments. This will provide valuable insights into the dynamics of these phenomena. (Castleberry and Nolen, 2018)

The interviewees' responses will be also evaluated with the assistance of Voyant Tools, a powerful web-based software application utilised for performing text analysis. It is an open-source software offering user-friendly tools for visualising and analysing text data (Sampsel, 2018). Its efficacy in the arena of scientific information analysis has been demonstrated in the appraisal of a corpus of articles from open-access journals, where it was used to identify dominant research fields and discourse themes (Kairaitytė-Užupė, Ramanauskaitė and Rudžionis, 2023). This software allows users to upload text documents or web pages and

perform various types of analyses, such as word frequency, topic modelling, and sentiment analysis. Voyant Tools is free and open source, meaning its source code is publicly available for others to use and modify (Hetenyi, Dr. Lengyel and Dr. Szilasi, 2019).

Cyruss tool will be used to showcase qualitative data in quantitative terms. This tool generates word clouds that place the most frequently used words in the centre and in the largest size. The "Stop word" function can exclude certain words or define the maximum amount of words to be retrieved from the corpus.

Furthermore, the interviewees' responses will be analysed using content analysis (Schilling, 2006). This method will enable the researcher to thoroughly assess the content of the interviews, identify themes and sub-themes, and validate the findings of the quantitative analysis. It will also help develop new theories and provide in-depth reasoning for workplace bullying encountered by remote IT workers.

4. CONCLUSION AND RECOMMENDATIONS

The research discusses the impact of Agile methodologies on trust among team members and between employees and management. It also addresses the challenges of remote work and the prevalence of workplace bullying among freelance remote workers. Additionally, the role of leadership and management in fostering trust and mitigating bullying is highlighted. The research concludes with practical recommendations for organisations, such as embracing Agile practices, training leaders to manage remote teams, and implementing transparent anti-bullying policies. Lastly, the research addresses a significant research gap in the literature by examining the relationship between Agile implementation and workplace bullying, filling a crucial void in previous studies.

The conclusion section of this research paper examines the outcomes of quantitative and qualitative analysis. The first was done through a survey conducted on freelance remote workers in the information technology (IT) industry. The second outcome was qualitative analysis. Twelve interviews were conducted with remote workers who are working remotely in IT. The results explained the quantitative numbers and provided insights into the challenges of working remotely and the role of Agile management in overcoming these challenges.

4.1. Research Results and Their Explanation:

H1 Implementing Agile and Trust: The study's quantitative results were by testing the hierarchical hypothesis using SmartPls $p = 0.003$ and using regression and correlation analysis $p = 0.0258$. $r = 0.326$ supports hypothesis H1 that incorporating an Agile mindset can enhance employee trust and decrease workplace bullying and abuse. Moreover, the qualitative analysis of the interviews reveals that remote working environments may create communication challenges and power imbalances, affecting trust levels among team members. In a mature Agile environment, having a designated scrum master is unnecessary, indicating high trust. However, timeline pressure still exists and increases in a highly trusting environment, and trust issues arise when performance is lower than expected. Lastly, trust is a real issue in a non-agile environment, as promises are made without any actions. These findings align with the conclusions of other studies. For instance, (Ram* and Vijayakumar, 2019) found that Agile adoption positively impacts trust, knowledge sharing, and collaboration in IT organisations. Similarly, a study conducted in Ireland by (McHugh, Conboy and Lang, 2011) revealed that three of the five Agile practices, namely daily stand-up, iteration in sprint planning, and team

retrospectives, contribute to building trust. Additionally, (McHugh, Conboy and Lang, 2012) reported that Agile could increase trust among team members by providing them with autonomy and responsibility.

Agile Implementation and Scaling: The survey results on Agile implementation showed that a significant percentage of respondents, 78%, had either worked or were working in an Agile environment, and 30% of those respondents reported that Agile mindset and tools were being used in departments other than software development. Although implementing Agile in the whole organisation is relatively new, there is a movement to expand it to other departments, including HR and marketing (Bjørni and Haugen, 2019). (Moran, 2015) states that the need for change and adoption of Agile is essential to overcome challenges to existing structures, hierarchies, people, culture, and processes. (Denning, 2018) Since Agile's initiation in 2001, the core concept has evolved, and the entire organisation needs to embrace the Agile mindset for successful implementation. Finally, (DeFauw, 2012) suggests that cross-department coordination is essential for successful Agile implementation, and Agile methods can be successfully implemented in marketing departments. On the other hand, to facilitate the expansion of Agile in their organisation, HR Managers can refer to a proposed model by (Choudhary and Pandita, 2022), which outlines the necessary implementation steps. Identifying an Agile attitude, client prioritisation, and employee engagement were the most crucial aspects of Agile HR.

H2 Workplace Bullying and Trust: This study has found that organisations with higher levels of trust experience fewer instances of workplace bullying and abuse. This has been tested by Hypothesis 2 and resulted in significant results of $p = 0.00001$ and $r = -0.498$ in the regression and correlation analysis for the quantitative part. Moreover, the qualitative analysis of the interviews delves into the correlation between trust and workplace bullying. It underscores that a lack of trust and instances of bullying can foster a toxic work environment, impeding collaboration and productivity. Conversely, a culture of trust promotes employee well-being, professional development, and respect, acting as a deterrent to bullying and abuse. However, it's crucial to note that trust alone cannot ensure a safe and respectful workplace. Proactive measures to address misconduct are essential in preventing workplace bullying and abuse.

This finding is consistent with previous research, such as (Cranwell-Ward and Abbey, 2005) study, which also found a link between stress and workplace mistreatment. (Elsayed-El and Abdelwahid, 2020) study also supports this, as they found a positive relationship between

authentic leadership behaviours and workplace trust. (Hoel *et al.*, 2009) study supports this hypothesis by highlighting the negative consequences of traditional management styles in IT organisations, including workplace bullying and declining employee trust. This reinforces the idea that organisational trust is crucial in mitigating negative workplace behaviours.

Similarly, (Bartlett and Bartlett, 2011; Harrington, Rayner and Warren, 2012; Feijó *et al.*, 2019) studies emphasise the importance of organisational factors and HRD interventions, such as cultivating a culture of trust, in preventing workplace bullying. Although they do not directly cite the relationship with organisational trust, the emphasis on creating a trusting organisational environment aligns with the hypothesis result. Overall, this study's findings contribute to a growing body of evidence supporting the critical role of organisational trust in mitigating workplace bullying and abuse.

The Challenge of Adopting Agile and Build Trust: The investigation has revealed that implementing Agile and establishing trust in an organisation necessitates substantial exertion from the developers' viewpoint. The observation is in line with (Durbin and Niederman, 2021) assertion that impediments encountered during the implementation of Agile, such as when implementing at different organisational levels, and Agile approaches may contradict current customs, norms, and policies. Such hindrances are not always deemed advantageous. Nevertheless, firms devoted to the process are more prone to achieving triumph in their Agile transformation.

H3 Agile Implementation and Work Bullying: The analysis of Hypothesis 3, which states that implementing an Agile mindset will decrease workplace bullying and abuse, was conducted using SmartPLS. The results showed a significant finding with $p = 0.000$. This finding was further supported by another regression test, which resulted in a significant finding with $p = 0.01$, confirming the acceptance of the hypothesis. The evidence suggests that adopting Agile methods can contribute to a reduction in workplace bullying and abuse.

The observed moderate negative correlation between the implementation of Agile methods and workplace bullying implies that as Agile practices increase, incidents of workplace bullying decrease. This aligns coherently with the preceding logical discourse and is substantiated by the findings outlined in Chapter 3.5. Moreover, the qualitative analysis of the interviews explores the relationship between Agile implementation and workplace bullying. The quantitative data indicates that Agile implementation can effectively reduce instances of workplace bullying. This finding is further supported by the qualitative analysis. Interviewees

working in a mature Agile environment reported no instances of bullying. They highlighted the balanced focus on delivered value, open communication, transparency, and using Scrum. In contrast, non-agile environments were found to harbour various forms of workplace bullying, including discrimination. The research underscores the importance of fostering a culture of trust and accountability to prevent abuse and create a safe working atmosphere.

Finally, it also indicated that although Agile was implemented in some organisations, they expressed issues implementing it, such as every team member applying Agile differently. Creating an immature Agile environment where bullying occurred.

Drawing upon the works of (Agile people, 2021; Junita, 2021; Al Jafa, Jihad and Várallyai, 2022), a theoretical connection is established between Agile principles and Agile HR. Additionally, (Perminova, Gustafsson and Wikström, 2008), contribute by connecting Agile methods with the reduction of uncertainty. Further, (Fox and Cowan, 2015; Akkaya and Bagieńska, 2022) establish a link between Agile HR and workplace bullying. Finally, (Hübler *et al.*, 2000) connect uncertainty directly with workplace bullying.

In conclusion, Agile principles exhibit a logical theoretical connection in mitigating factors that contribute to workplace bullying, utilising the two mediators, uncertainty and Agile HR. Figure 5, derived from the literature review, unveils these mediators as the conceptual links connecting Agile principles with workplace bullying. It appears that there has been limited research on the potential correlation between Agile and workplace bullying, and the direct relationship between Agile and workplace bullying has not been extensively explored. However, by considering mediator factors such as Agile HR and uncertainty, the theoretical foundations supporting Hypothesis 3 are logically established. This highlights the importance of the current research in shedding light on these complex relationships.

H4 Workplace Bullying and Working Conditions: The survey results indicate that workplace bullying is a pervasive issue, with a high proportion of freelancers (83.5%) reporting experiencing bullying frequently. This prevalence rate emphasises the need for effective interventions to address the issue in the workplace. Nevertheless, it is still less than the 95% of remote workers in India reported by (Rai and Upasna, 2016). Moreover, the qualitative analysis of the interviews discusses the advantages and disadvantages of remote work, including challenges such as lack of promotion opportunities, isolation, and communication barriers. It recommends a hybrid approach to balance visibility and flexibility and suggests finding ways to showcase contributions to avoid being overlooked for promotions. Communication

challenges such as language and cultural barriers can be addressed through video calls and English-speaking rules in international companies. This result aligns with the findings of previous studies in different regions. For instance, the qualitative study by (Noronha and D’cruz, 2018), examined workplace bullying among freelance workers using the Upwork platform. The study reported a positive correlation between workplace bullying and non-standard employment and found that workplace bullying is expected in the online labour market in India. Similarly, (Rai and Upasna, 2016) reported that workplace bullying is a global phenomenon, with 95% of employees reporting being subjected to bullying behaviours. These previous findings support the current study's results and indicate that workplace bullying is a widespread problem that affects freelancer employees globally, regardless of their job status or industry. A significant problem that requires attention.

The study investigated the link between workplace bullying and five factors: unpaid overtime, micromanagement pressure, threats of termination and payment cuts, promises of fake benefits, and discrimination. The results showed that 74% of freelance remote workers experienced workplace bullying due to unpaid overtime, followed by 52% due to micromanagement pressure. Threats of termination and payment cuts were reported by 22% of workers, while 41% reported being promised fake benefits. Additionally, 30% of the workers stated that they had faced discrimination.

These findings emphasise the importance of employers taking action to create inclusive and equitable work environments. Specifically, employers should implement anti-discrimination policies and provide diversity and inclusion training to their employees. While previous studies identified factors contributing to workplace bullying, this study collected these factors from the literature review and included them in the distributed survey. These factors are mandatory or unpaid overtime, micromanagement pressures (Hoel, Zapf and Cooper, 2002), threatening termination and payment cuts (McAvoy and Murtagh, 2003).

(Lee, 2000) indicated that remote workers who experienced promises of fake benefits, reduced payment by penalty, or a denied pay raise were at an increased risk of workplace exploitation. Additionally, discrimination against remote workers was reported by (Pietersen, 2007), All these studies highlighted the need for further research in these areas.

Overall, this study highlights the prevalence of workplace bullying among freelance remote workers and the need for employers to address this issue.

Hypothesis 4 (H4) posited a relationship between working conditions and work abuse. The analysis focused on project- and hourly-based freelancers. The results of the analysis indicate that project-based freelancers reported a bullying rate of 82%. In comparison, hourly-based freelancers reported an 84% bullying rate, resulting in a total bullying rate of 83.5%. Contrary to expectations, the analysis revealed no statistically significant difference between the two groups. However, more findings were tested in the qualitative analysis. Remote work poses unique communication challenges and potential exploitation compared to traditional office settings. The evidence suggests that remote workers may experience isolation, unfair treatment, and difficulties in showcasing their value to the organisation. Communication challenges, such as language and cultural barriers, can lead to misunderstandings and misinterpretations and exacerbate performance issues. Additionally, the qualitative data suggests that there may be differences in the severity of workplace bullying and exploitation between project-based and hourly freelance remote workers. Therefore, the hypothesis that remote work poses distinct challenges for communication and potential exploitation can be accepted.

This outcome matches with the observations made by (Hoel, Zapf and Cooper, 2002), who noted a higher susceptibility to workplace bullying among male part-time workers compared to their full-time counterparts. Another research by (Ortega *et al.*, 2009) supports the idea that the type of work can significantly influence workplace bullying. Ortega found that unskilled workers and those in male-dominated or client-facing roles face a higher risk of being subjected to workplace bullying. Consequently, these findings suggest that the nature of work and the gender ratio within specific roles are substantial risk factors in the onset of workplace bullying.

Considering these qualitative findings, it appears that there are indeed distinct communication challenges and potential work abuse in remote work compared to traditional office settings. Moreover, the qualitative data suggests that there might indeed be differences in the severity of workplace bullying and exploitation between project-based and hourly freelance workers.

Based on the provided qualitative results, the hypothesis can be accepted because:

- Remote work does pose distinct challenges for communication and potential exploitation.
- There seems to be evidence of differences in the severity of workplace bullying and exploitation between different types of remote workers.

To sum up, the study's findings Accept the suggested link between work conditions and work abuse in the context of freelance projects versus traditional hourly office settings. The results

offer valuable insights into the complex dynamics of work abuse in different working conditions, questioning assumptions and calling for further investigation, particularly in light of the observed trends by other working conditions identified by (Hoel, Zapf and Cooper, 2002) and (Ortega *et al.*, 2009).

H5 Freelancers Working Rights: Hypothesis 5 compares satisfaction with the legal rights recommendation by comparing the working conditions with on-site workers and the existence of sufficient measures to prevent workplace bullying. At the time of this study, Remote workers and Freelancers lack the same rights and protections as traditional employees. The European Union lacks specific regulations to protect their interests, putting them at risk of exploitation as shown in Chapter 3.7. Policymakers must address these gaps and establish comprehensive protections. SmartPLS found a p-value of 0.000, supporting the data analysis that 82.5% of respondents supported enhanced legal rights. Remote workers demand equitable rights and fair contracts.

The acceptance of Hypothesis H5 aligns with previous studies conducted by various researchers, highlighting the lack of legal protection for freelancers. (Sundalangi, 2018) and (M. Muhsin, 2021) both emphasise the absence of clear regulations and employer responsibilities, exposing freelancers to potential exploitation. However, (M. Muhsin, 2021) also points to recent legislation in Indonesia as a model for a clearer legal framework that Europe could adopt. (Merkel, 2019) and (Wynn, 2015) discuss the potential for collective self-help and organisation among freelancers, with co-working spaces and freelance unions offering support and protection. Collectively, these studies convey the nuanced nature of legal protection for freelancers, acknowledging challenges while also identifying opportunities for improvement and empowerment within the freelance community.

The Hypothesis also suggest that remote workers want remote work legal rights to be improved to protect them as regular employee work to reduce workplace bullying. The study found a significant correlation ($r = 0.43$) between the number of experiences of workplace bullying and the likelihood of recommending better legal rights for remote workers. This correlation indicates a positive relationship between workplace bullying and the need for better legal rights for remote workers. Both the regression analysis and SmartPLS results identified workplace bullying as a significant predictor for recommending better legal rights for remote workers.

The study also found that 68% of freelancers perform unpaid trials and share their ideas without receiving any compensation. This practice may be considered a form of exploitation of

freelancers, who are often left unprotected without a proper contract. Freelancers may be more vulnerable to workplace bullying, as shown by previous studies, with Indian freelancers experiencing emotional abuse in online labour markets (Noronha and D’cruz, 2018). However, workplace bullying is a widespread issue that requires attention across all employment types (NOTELAERS *et al.*, 2011). The idea of exploitation, as defined by (Andrejevic, 2010), refers to the act of taking advantage of workers by making them work without pay, under compulsion, and in alienating conditions. Even the most trustworthy platforms can be used to bypass employment regulations, putting workers at risk and increasing uncertainty (Aloisi, 2015). However, countries are moving to improve this, the Freelance Isn't Free Act implemented in New York City, as mentioned by (Gounardes, 2022), is a significant step towards protecting freelancers. This law mandates all companies that hire freelancers, regardless of location, to provide written contracts and ensure timely payments, promoting fair treatment and safeguarding the rights of freelancers who are vulnerable to exploitation.

Moreover, the qualitative analysis of the interviews discusses the issue of workplace bullying and abuse among remote workers. Half of the interviewees expressed concern about inadequate company regulations to protect their rights and prevent them from being bullied. The importance of having clear and transparent bullying policies, tracking incidents, and taking disciplinary action to address inappropriate behaviour is emphasized. Raising awareness within the organisation is suggested as a way to address and prevent workplace bullying and abuse. Despite efforts to address the issue with management, bullying persists in some cases, further exacerbating the sense of isolation and frustration among remote workers.

4.2. Summary

Several hypothesis tests were conducted to investigate the research questions. Correlation analysis was performed to test hypotheses H1, H2, H3, and H5, while data analysis and visualisation were used to examine hypotheses H1, H2, H4, and H5. Moreover, a chi-squared test and regression analysis were conducted to test hypotheses H3 and H5. The results of these tests provide insights into the relationships between the variables under investigation. Using hypothesis tests allowed this research to draw conclusions about their findings' statistical significance and evaluate their hypotheses' validity. It is typical to determine if there is a significant correlation between two categorical variables using the chi-squared test of independence. On the other hand, correlation analysis measures the strength and direction of the link between two continuous variables, and regression analysis investigates the effect of one

or more predictor variables on a dependent variable. Furthermore, using qualitative tests allowed this research to draw conclusions and recommendations supporting the statistical data collected in the quantitative test. The findings are depicted in Figure 21, indicating the acceptance or rejection of each hypothesis, along with the direction of the relationship between the two variables. These hypotheses were previously explained in chapters 6.1 to 6.6. Additionally, a summary of all the statistical results and conclusions drawn from each hypothesis can be found in Table 10.

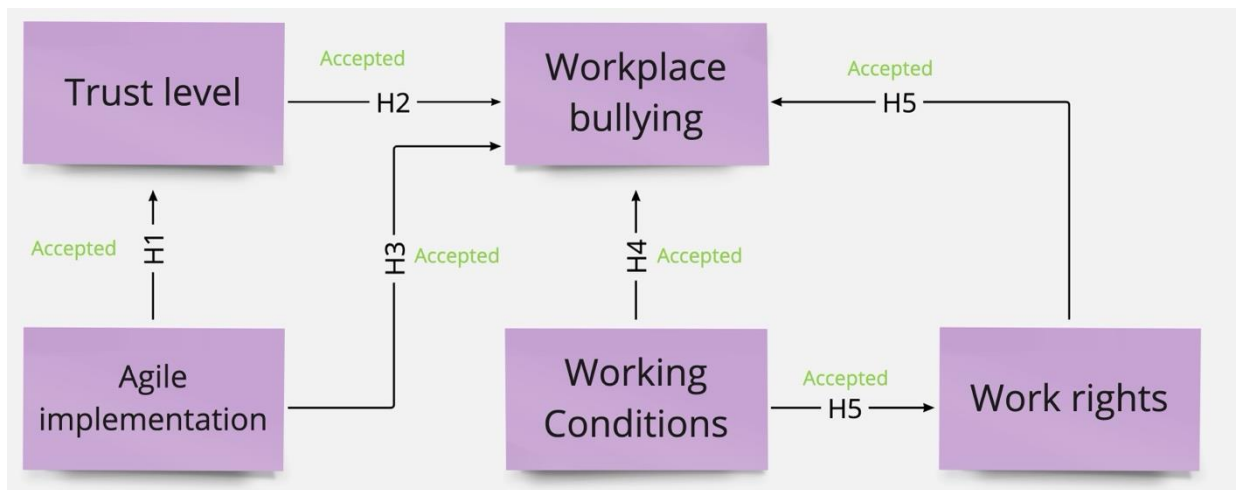


Figure 5: Final Hypotheses test results

Source: own editing based on survey data, 2023.

Table 1 Summary of the Hypothesis Test Results

Hypothesis	Significance Hypothesis Testing	Significance (Regression, correlation)	Result	Explanation
H1: Agile Implementat ion -> Trust Level	p = 0.003	p = 0.0258 r = 0.326	Accepted	Implementing Agile in IT organisations will increase employee trust.
H2: Trust Level -> Work Abuse	N/A	p = 0.00001 r = -0.498	Accepted	Increased organisational trust levels result in lower workplace bullying and abuse incidences.
H3: Agile Implementat ion -> Work Abuse	p = 0.000	p = 0.01 OR=2.5	Accepted	Implementing an Agile methods will decrease workplace bullying and abuse.
H4: Working Conditions -> Work Abuse	N/A	project-based: 82% Bullied hourly-based: 84% Bullied 83.5% Total Bullied	Accepted	Link was found between work conditions and work abuse in the context of freelance projects versus traditional hourly office settings.
H5: Work Rights -> Working Conditions	p = 0.000	82.5% recommended this p-value = 0.001 r = 0.43	Accepted	Remote workers are advocating for having equal rights with office workers. Better remote work regulations for freelancers would help reduce work abuse.

The findings suggest that implementing Agile principles and building trust within organisations require a cultural shift, strong leadership, and significant time and effort. However, the benefits can be significant, including increased productivity, better collaboration, and faster response to changing requirements. Employers who commit to the process and invest in the necessary resources and support are likelier to succeed in their Agile transformation.

4.3. Research Recommendations

The trends shown in the quantitative analysis, along with the qualitative analysis and the analysis of literature review, provided insights to form the recommendations. These recommendations can be used to manage remote workers, support employees best, and prevent workplace bullying and abuse. In the quantitative analysis, Trust in organisations has proven again to be an essential factor. Agile were linked positively with increasing trust and lower workplace bullying, considering it as the best way to build and maintain trust; then more questions were raised about which type of management method is the best to build a work environment and let employees on-site and remotely feel supportive where they feel comfortable reporting incidents of bullying or abuse, the answer came from the qualitative analysis and finding thematic answered this by proposing Agile management as a practice to implement this. Ensuring transparency and efficient communication where a culture of respect and collaboration exists, where all team members are treated with dignity and fairness. Companies should consider incorporating Agile practices into their building process to create an environment that encourages collaboration and empowers employees.

Recommendations to Address Workplace Bullying and Trust Issues

1. Implement Clear and Transparent Anti-Bullying Policies.
 - **Develop Comprehensive Policies:** Ensure that clear, comprehensive, and transparent anti-bullying policies are in place. These should define what constitutes bullying and provide clear procedures for reporting and addressing it.
 - **Anonymous Reporting Mechanisms:** Implement mechanisms for anonymous reporting to encourage employees to speak up without fear of retaliation. For example, interviewees highlighted the importance of anonymous reporting in preventing bullying.
2. Foster a Culture of Trust and Open Communication.

- **Regular Feedback and Communication:** Encourage regular, structured communication, such as daily stand-up meetings in Agile environments, to maintain transparency and trust. As seen in the interviews, daily scrum meetings were effective in fostering trust.

- **Promote Open Dialogue:** Create a culture where employees feel safe to voice their concerns. This includes promoting open dialogue between employees and management and ensuring that feedback is taken seriously and acted upon.

3. Address Managerial Misconduct and Power Imbalances.

- **Training for Managers:** Provide training for managers on how to manage teams effectively, especially in remote and hybrid environments. This includes training on cultural sensitivity, communication, and conflict resolution. Train managers to support remote employees, address motivation issues, and actively monitor for signs of workplace bullying. Interviews indicated a lack of managerial support, which resulted in low morale (e.g., "Lack of motivation is why I'm searching for another job now").

- **Regular Assessments and Feedback:** Conduct regular assessments of managers to ensure they are supporting their teams appropriately. Avoid relying solely on one-to-one assessments, as suggested by interviewee 7. Managers should be equipped to provide feedback, recognise achievements, and create a supportive environment that mitigates the risk of burnout and dissatisfaction.

4. Apply or enhance Agile Implementation.

- **Ensure Maturity of Agile Practices:** Ensure that Agile practices are mature and well-implemented. This includes having regular sprints, daily scrum meetings, and a culture of constructive feedback.

- **Role Flexibility:** In mature Agile environments, roles such as Scrum Master can be flexible and taken on by different team members, as interviewees 11 and 7 noted. This flexibility can contribute to higher levels of trust and self-accountability.

- **Implement Agile Methodologies to Increase Employee Trust and Reduce Workplace Bullying:** Adopt Agile management practices to create a supportive work environment that promotes trust, reduces workplace bullying, and supports remote workers.

Agile principles, like transparency, team empowerment, and regular feedback, create a culture of respect and collaboration. These principles empower individuals, promote self-organising teams, and reduce micromanagement—a common form of workplace bullying. Seven

interviewees, including 2, 5, 6, 7, 9,10 and 11, highlighted the benefits of Agile. The positive attributes of the Agile environment include a strong focus on teamwork, remote work flexibility, a "chill" and goal-oriented work culture, a sense of camaraderie within the team, and strict policies against workplace bullying and discrimination. By implementing these practices, organisations can create an environment where employees feel valued and respected, reducing the likelihood of bullying. Ensuring transparency and efficient communication fosters a culture of respect and collaboration, where all team members are treated with dignity and fairness. Building companies should consider incorporating Agile practices into their process to encourage collaboration and empower employees. Evidence from the interviews showed that Agile environments reduced workplace bullying and promoted employee trust.

5. Hybrid Work Model.

- **Balance On-site and Remote Work:** Adopt a hybrid work model that balances remote and on-site work benefits. This can help mitigate the isolation and communication challenges associated with fully remote work.

- **Visibility of Efforts:** Ensure that remote workers' efforts are visible and recognised. This can be achieved through regular updates, team meetings, and performance reviews.

6. Addressing Language and Cultural Barriers.

- **Language Training and Support:** Provide language training and support to help non-native speakers communicate more effectively.

- **Cultural Sensitivity Training:** Offer cultural sensitivity training to all employees to reduce misunderstandings and foster a more inclusive work environment.

7. Tracking and Accountability.

- **Incident Tracking:** Establish a system to track reported incidents of bullying and other misconduct. Regularly review and address these incidents to ensure accountability.

- **Disciplinary Actions:** Take appropriate disciplinary actions against repeat offenders to maintain a safe and respectful workplace environment.

8. Raising Awareness and Education.

- **Awareness Campaigns:** Conduct regular awareness campaigns about workplace bullying, its effects, and how to report it. This should be part of the company's ongoing efforts to prevent bullying and abuse.

- **Employee Training:** Provide training to all employees on recognising and responding to bullying. This can empower employees to take action when they witness or experience bullying.

9. Fair Agreements and Trust Building with remote workers and freelancers.

Provide fair agreements and avoid requesting free trials without proper contracts or reimbursement. Ensuring transparent and equitable contract terms can improve trust and reduce stress among freelancers, thereby lowering the risk of workplace bullying, as was supported in the quantitative analysis. Interviewee #12 noted, “All the promises made were fake, and nothing was actually resolved.” This highlights the need for transparency and fair treatment in contract terms. Along with many other interviewees who raised this issue, Trust issues and unfair treatment were common themes in the qualitative data.

By addressing these areas, organisations can create a more supportive and trustful work environment, whether operating in Agile or non-Agile settings, and effectively mitigate workplace bullying.

4.4. Research Limitations

Although the research has successfully achieved its objectives and addressed the research questions, it is not without limitations. Her

- **Sample Diversity- Demographic and Industry Representation:** The interviewees' diversity in demographics, industry sectors, and geographic locations is not specified. This lack of diversity might limit the applicability of the findings across different contexts. The study focused on a single manufacturing sector, IT companies, and only considered freelance software developers, excluding consultants, managers, or researchers. Therefore, future studies could expand the scope of the investigation to different working sectors such as marketing, advertisement, or education. Conducting a comparative study between different industrial sectors could provide insights into the impact of implementing Agile on workplace bullying since this relationship requires further investigation.
- **Scope of Analysis - Emphasis on Remote Work:** The study primarily focuses on the challenges of remote work, which might overshadow other important aspects of workplace dynamics in hybrid or on-site settings.

- **Temporal Factors - Timing of Data Collection:** The data collection period might influence the findings. For instance, remote work dynamics could differ significantly pre- and post-pandemic, and these temporal factors are not explicitly addressed.
- **Context-Specific Findings- Organizational and Cultural Specificity:** Findings from specific organisations or cultural contexts may not universally apply. Different organisational cultures and regional cultural norms can significantly influence the phenomena of trust and bullying.
- **Lack of Longitudinal Data - Short-Term Perspective:** The research appears to be cross-sectional, providing a snapshot in time rather than examining changes and developments over a longer period. Longitudinal studies could offer more insights into the dynamics of trust and workplace bullying.

Finally, it would be valuable to investigate the synergistic effect of other management practices, such as lean management and its tools, on workplace culture, specifically workplace bullying. Such research could provide a more nuanced understanding of workplace bullying and ways to mitigate it effectively.

5. MAIN CONCLUSION AND NOVEL FINDINGS

The research provides main conclusions and novel findings on the impact of Agile methodologies and remote work settings on trust and workplace bullying. It highlights the positive influence of Agile practices on trust, the challenges and dynamics of remote work, the role of leadership in fostering trust and mitigating bullying, and practical recommendations for organisations. The research also offers comparative insights on trust in Agile versus non-Agile environments, a new understanding of remote work's effect on workplace bullying, qualitative depth of personal experiences, identification of trust-building practices in Agile teams, and context-specific bullying mechanisms. The importance of informal interactions in remote work is also emphasised. These insights are valuable for organisations aiming to enhance trust, prevent workplace bullying, and foster a positive work environment. To our knowledge, this relationship has not been tested before.

5.1. Main Conclusions

1. Impact of Agile Methodologies on Trust:

- Agile methodologies significantly enhance trust among team members and between employees and management. Agile practices, such as regular communication through daily stand-ups and retrospectives, promote transparency, collaboration, and a sense of shared purpose, which are crucial for building and maintaining trust.

2. Challenges of Remote Work:

- Remote work presents unique challenges that can both foster and hinder trust. While remote work can increase flexibility and autonomy, it can also lead to communication barriers and feelings of isolation. These factors can negatively impact trust if not properly managed.

3. Workplace Bullying in Different Settings:

- The prevalence of workplace bullying among freelance remote workers is a significant concern, with a high proportion of respondents reporting frequent incidents of bullying. One element that allows workplace bullying is insufficient legal protection for remote freelance workers. This research surveyed remote IT workers living in Hungary and the Netherlands but working in international companies worldwide. It found a high percentage of work bullying and workers facing workplace bullying and demanding better work rights, similar to regular employees with better contracts and

benefits. This highlights the necessity for more investigation to address the issue in the workplace. Our data analysis further reveals that **unpaid overtime and micromanagement pressure are the most common forms of workplace bullying experienced by freelancers working in companies worldwide.**

- The study reveals that workplace bullying manifests differently in Agile versus non-agile and remote versus on-site environments. **Agile environments tend to have lower instances of bullying** due to the emphasis on teamwork and open communication. However, remote work can sometimes exacerbate bullying due to the lack of face-to-face interactions and the potential for miscommunication.

4. **Role of Leadership and Management:**

- Effective leadership and management practices are critical in fostering trust and mitigating bullying. Leaders demonstrating transparency, empathy, and consistent communication can significantly enhance team trust and reduce bullying incidents.

5. **Practical Recommendations for Organizations:**

- Organisations should embrace Agile practices to cultivate a culture of trust and collaboration. For remote teams, holding regular virtual meetings and creating opportunities for informal interactions can help maintain trust and receive direct feedback. In addition, organisations should provide training for leaders to manage remote teams and proactively address bullying effectively. Implementing clear and transparent anti-bullying policies is essential. Hybrid work has been suggested as a solution that allows companies to leverage the benefits of both remote and on-site work.

Research Gap: This study is the first to investigate **the relationship between Agile implementation and workplace bullying.** Previous studies have shown a negative relationship between trust and workplace bullying. Additionally, a positive relationship between stress, uncertainty, and workplace bullying has been established. However, no direct research has been previously conducted to link the Agile mindset, which involves iterations to deal with uncertainty and has principles to empower individuals and build trust. Therefore, this research fills a crucial gap in the literature that has not been studied before.

5.2. **Novel Findings**

1. **Comparative Insights on Trust:**

- The research provides novel comparative insights into how trust is built and maintained in Agile versus non-agile environments, highlighting the specific practices and principles that make Agile methodologies particularly effective in fostering trust. The results show **a moderately negative relationship between Trust and workplace bullying and a negative relationship between trust and discrimination levels**. Implementing Agile principles and building trust within organisations requires a cultural shift, strong leadership, and significant resources and effort. However, the benefits can be substantial, including better communication, better collaboration, and a faster response to changing requirements.

2. Remote Work and Bullying Dynamics:

- The study offers a new understanding of how remote work affects workplace bullying, identifying specific factors that can either mitigate or exacerbate bullying in a remote setting. This adds a new dimension to the existing literature on workplace bullying, which traditionally focuses on on-site environments. The novelty of this research is *that it offers a solution for remote working communication and cultural challenges* by suggesting Agile and, more specifically, scrum event to prevent silos and improve the work culture, build trust, and prevent workplace bullying.
- Additionally, many respondents reported performing unpaid trials and sharing their ideas without compensation, which can be considered a form of exploitation. The research provides insights into how unethical unpaid crowdsourcing practices can be used as an early indicator of workplace bullying and exploitation for freelancers.

3. Qualitative Depth of Personal Experiences:

- The research captures employees' experiences and perceptions of trust and bullying through in-depth interviews. This qualitative data provides a richer, more nuanced understanding of these issues, which is often missing from quantitative studies.

4. Identification of Trust-Building Practices in Agile Teams:

- The research shows that **trust levels are higher in companies fully adopting Agile**, which aligns with previous studies. However, The research identifies specific Agile practices, such as regular retrospectives and collaborative planning sessions, that are particularly effective in building trust in remote working settings. This finding is novel in highlighting actionable practices that can be adopted by organisations to enhance trust.

5. Context-Specific Bullying Mechanisms:

- By exploring the mechanisms through which bullying occurs in different organisational contexts, the study offers new perspectives on preventing and addressing bullying. For example, it identifies how the lack of face-to-face interaction in remote work can lead to misunderstandings and conflicts that may escalate into bullying.

6. **Role of Informal Interactions in Remote Work:**

- The research highlights the importance of informal interactions in maintaining trust in remote teams. Creating virtual spaces for casual conversations can help mitigate the isolation and communication barriers that remote work can bring.

7. **The Role of Management support and regulations:**

- It sheds light on the rights and regulations for freelancers and remote workers. It emphasises the need for further studies to improve companies' regulations in order to prevent workplace bullying and protect workers. The study analysed the freelance and remote work market in Europe. The results align with other researchers' findings regarding trust and workplace bullying. It is essential for companies to create and implement clear and transparent anti-bullying policies and to comply with country regulations.

Conclusion

The main conclusions and novel findings of this research provide a comprehensive understanding of how trust and workplace bullying are influenced by Agile methodologies and remote work settings. These insights are valuable for organisations seeking to foster a positive work environment, enhance trust among employees, and effectively address and prevent workplace bullying. The research underscores the importance of Agile practices, effective leadership, and proactive measures in creating a culture of trust and preventing bullying.

SUMMARY

This research can be categorised as a descriptive or analytical study because it attempts to investigate a link between Agile implementation, trust, working conditions and workplace bullying and explore remote workers' satisfaction with their current legal rights. Additionally, it assumed a positive relationship existed between experiencing workplace bullying and recommending a better legal right, then empirically tested the relationship. Six chapters make up the dissertation.

Overall, **the study emphasises the importance of addressing workplace bullying and promoting trust among employees, particularly remote workers.** The results suggest that trust levels are higher in companies that have fully adopted Agile, associated with lower workplace bullying and abuse incidences.

Additionally, the study identifies the negative impact of workplace bullying on freelance remote workers. It highlights the need to enhance and promote remote work as a legitimate and safe option for employees. The research also emphasises the importance of providing sufficient legal protection for remote workers, including freelancers, who face a high percentage of work bullying. Our findings have significant implications for organisations seeking to improve their workplace culture and support their remote workforce. The research also emphasises the importance of providing sufficient legal protection for remote workers, including freelancers, who face a high percentage of work bullying. Further long-term studies are necessary to verify the potential impact of improved freelance remote work rights on dealing with country crises and reducing high-skilled labour migration.

BIBLIOGRAPHY:

1. Agile people (2021) *Agile HR Manifesto*. Available at: <https://www.agilehrmanifesto.org/> (Accessed: 30 March 2021).
2. Ahuja, M.K. (2002) 'Women in the information technology profession: a literature review, synthesis and research agenda', *European Journal of Information Systems*, 11(1), pp. 20–34. Available at: <https://doi.org/10.1057/palgrave.ejis.3000417>.
3. Akkaya, B. and Bagińska, A. (2022) 'The Role of Agile Women Leadership in Achieving Team Effectiveness through Interpersonal Trust for Business Agility', *Sustainability*, 14(7), p. 4070. Available at: <https://doi.org/10.3390/su14074070>.
4. Alasuutari, P., Brannen, J. and Bickman, L. (2008) *The SAGE Handbook of Social Research Methods*. London: Sage.
5. Aloisi, A. (2015) 'Commoditized Workers The Rising of On-Demand Work, A Case Study Research on a Set of Online Platforms and Apps', *SSRN Electronic Journal* [Preprint]. Available at: <https://doi.org/10.2139/ssrn.2637485>.
6. Alsaqqa, S., Sawalha, S. and Abdel-Nabi, H. (2020) 'Agile Software Development: Methodologies and Trends', *International Journal of Interactive Mobile Technologies (IJIM)*, 14(11), p. 246. Available at: <https://doi.org/10.3991/ijim.v14i11.13269>.
7. Andrejevic, M.B. (2010) 'Surveillance and Alienation in the Online Economy', *Surveillance & Society*, 8(3), pp. 278–287. Available at: <https://doi.org/10.24908/ss.v8i3.4164>.
8. Archdeacon, T.J. (1994) *Correlation and Regression Analysis: A Historian's Guide*. Univ of Wisconsin Press. Available at: https://books.google.com/books/about/Correlation_and_Regression_Analysis.html?id=QmFFpQW8V8EC (Accessed: 25 February 2023).
9. Bartlett, J.E. and Bartlett, M.E. (2011) 'Workplace Bullying: An Integrative Literature Review', *Advances in Developing Human Resources*, 13(1), pp. 69–84. Available at: <https://doi.org/10.1177/1523422311410651>.
10. Baruch, Y. and Holtom, B.C. (2008) 'Survey response rate levels and trends in organizational research', *Human Relations*, 61(8), pp. 1139–1160. Available at: <https://doi.org/10.1177/0018726708094863>.
11. Bell, E. and Bryman, A. (2019) *Business Research Methods*. 5th edn. Oxford: Oxford University Press. Available at: [https://books.google.hu/books?hl=en&lr=&id=J9J2DwAAQBAJ&oi=fnd&pg=PP1&dq=Bryman+%26+Bell+\(2011\)&ots=GMBvfccWBN&sig=UxAVTpytuKOOEfk2RwKhLed0J38&redir_esc=y#v=onepage&q=Bryman%20%26%20Bell%20\(2011\)&f=false](https://books.google.hu/books?hl=en&lr=&id=J9J2DwAAQBAJ&oi=fnd&pg=PP1&dq=Bryman+%26+Bell+(2011)&ots=GMBvfccWBN&sig=UxAVTpytuKOOEfk2RwKhLed0J38&redir_esc=y#v=onepage&q=Bryman%20%26%20Bell%20(2011)&f=false) (Accessed: 17 May 2021).
12. Bjørni, M.A. and Haugen, S. (2019) *Challenges with Agile in a System Development Department : A Case Study*. University of Agder. Available at: <https://uia.brage.unit.no/uia-xmlui/bitstream/handle/11250/2627387/Bj%C3%B8rni,%20Marius%20Andersen%20og%20Haugen,%20Simen.pdf?isAllowed=y&sequence=1> (Accessed: 1 March 2023).
13. Brew, A. (2007) 'Academic Autonomy and Research Decision-Making: The Researcher's View', in, pp. 47–64. Available at: [https://doi.org/10.1016/S1479-3628\(06\)04003-2](https://doi.org/10.1016/S1479-3628(06)04003-2).

14. Browne, K. (2005) 'Snowball sampling: using social networks to research non-heterosexual women', *International Journal of Social Research Methodology*, 8(1), pp. 47–60. Available at: <https://doi.org/10.1080/1364557032000081663>.
15. Castleberry, A. and Nolen, A. (2018) 'Thematic analysis of qualitative research data: Is it as easy as it sounds?', *Currents in Pharmacy Teaching and Learning*, 10(6), pp. 807–815. Available at: <https://doi.org/10.1016/j.cptl.2018.03.019>.
16. Choudhary, P. and Pandita, D. (2022) 'Agile HR: The Need for the E-Business Environment', in *2022 7th International Conference on Business and Industrial Research (ICBIR)*. IEEE, pp. 274–278. Available at: <https://doi.org/10.1109/ICBIR54589.2022.9786501>.
17. Cochran, W.G. (1977) *Sampling techniques*. John Wiley & Sons.
18. Cranwell-Ward, J. and Abbey, A. (2005) 'The Business Context and Organizational Drivers for Managing Stress', in *Organizational Stress*. London: Palgrave Macmillan UK, pp. 7–23. Available at: https://doi.org/10.1057/9780230522800_2.
19. Creswell J. David and Creswell John W. (2017) *Research Design Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications.
20. Dawson, P.A. (2014) 'Resource Review: Why So Few? Women in Science, Technology, Engineering, and Mathematics', *Journal of Youth Development*, 9(4), pp. 110–112. Available at: <https://doi.org/10.5195/jyd.2014.44>.
21. DeFauw, R. (2012) 'Can Marketing Go Agile?', in *2012 Agile Conference*. IEEE, pp. 136–140. Available at: <https://doi.org/10.1109/Agile.2012.15>.
22. Denning, S. (2018) 'How major corporations are making sense of Agile', *Strategy & Leadership*, 46(1), pp. 3–9. Available at: <https://doi.org/10.1108/SL-11-2017-0104>.
23. Dönmez, D. and Grote, G. (2018a) 'Two sides of the same coin – how agile software development teams approach uncertainty as threats and opportunities', *Information and Software Technology*, 93, pp. 94–111. Available at: <https://doi.org/10.1016/J.INFSOF.2017.08.015>.
24. Dönmez, D. and Grote, G. (2018b) 'Two sides of the same coin – how agile software development teams approach uncertainty as threats and opportunities', *Information and Software Technology*, 93, pp. 94–111. Available at: <https://doi.org/10.1016/j.infsof.2017.08.015>.
25. Doody, O. and Noonan, M. (2013) 'Preparing and conducting interviews to collect data', *Nurse Researcher*, 20(5), pp. 28–32. Available at: <https://doi.org/10.7748/nr2013.05.20.5.28.e327>.
26. Durbin, M. and Niederman, F. (2021) 'Bringing templates to life: overcoming obstacles to the organizational implementation of Agile methods', *International Journal of Information Systems and Project Management*, 9(3), pp. 1–18. Available at: <https://doi.org/10.12821/ijispm090301>.
27. Elsayed-El, A. and Abdelwahid, A. (2020) 'Workplace Trust and Authentic Leadership as Predictors of Work-related Bullying among Staff Nurses', *International Journal of Nursing Education*, 12(1), pp. 90–95. Available at: <https://doi.org/10.37506/ijone.v12i1.3700>.

28. Feijó, F.R. *et al.* (2019) 'Risk Factors for Workplace Bullying: A Systematic Review', *International Journal of Environmental Research and Public Health*, 16(11), p. 1945. Available at: <https://doi.org/10.3390/ijerph16111945>.
29. Fox, S. and Cowan, R.L. (2015) 'Revision of the workplace bullying checklist: the importance of human resource management's role in defining and addressing workplace bullying', *Human Resource Management Journal*, 25(1), pp. 116–130. Available at: <https://doi.org/10.1111/1748-8583.12049>.
30. Gounardes, A. (2022) *NY State Senate Bill S8369B*. New York. Available at: <https://www.nysenate.gov/legislation/bills/2021/s8369> (Accessed: 1 March 2023).
31. Greenwood, P. and Nikulin, M. (1996) *A guide to chi-squared testing*. Available at: <https://books.google.com/books?hl=en&lr=&id=bc8zfQSKOwIC&oi=fnd&pg=PR7&ots=JZvNhx58a3&sig=oEMWolaiDvrblXIS0ezNfObLYPQ> (Accessed: 25 February 2023).
32. Grote, G. (2015) 'Promoting safety by increasing uncertainty – Implications for risk management', *Safety Science*, 71, pp. 71–79. Available at: <https://doi.org/10.1016/j.ssci.2014.02.010>.
33. Gyulavári, T. (2014) 'A BRIDGE TOO FAR? THE HUNGARIAN REGULATION OF ECONOMICALLY DEPENDENT WORK', *Hungarian Labor Law E-journal*, 82, pp. 95–98. Available at: http://hlj.hu/letolt/2014_1_a/01.pdf (Accessed: 20 May 2021).
34. Hair, J.F. *et al.* (2019) 'When to use and how to report the results of PLS-SEM', *European Business Review*, 31(1), pp. 2–24. Available at: <https://doi.org/10.1108/EBR-11-2018-0203/FULL/XML>.
35. Harrington, S., Rayner, C. and Warren, S. (2012) 'Too hot to handle? Trust and human resource practitioners' implementation of anti-bullying policy', *Human Resource Management Journal*, 22(4), pp. 392–408. Available at: <https://doi.org/10.1111/1748-8583.12004>.
36. Hetenyi, G., Dr. Lengyel, A. and Dr. Szilasi, M. (2019) 'Quantitative analysis of qualitative data: Using voyant tools to investigate the sales-marketing interface', *Journal of Industrial Engineering and Management*, 12(3), p. 393. Available at: <https://doi.org/10.3926/jiem.2929>.
37. Hicks, J.R. (1931) 'The Theory of Uncertainty and Profit', *Economica*, (32), p. 170. Available at: <https://doi.org/10.2307/2547922>.
38. Hoel, H. *et al.* (2009) 'Leadership Styles as Predictors of Self-reported and Observed Workplace Bullying', *British Journal of Management* [Preprint]. Available at: <https://doi.org/10.1111/j.1467-8551.2009.00664.x>.
39. Hoel, H., Zapf, D. and Cooper, C.L. (2002) 'Workplace bullying and stress', in *Research in Occupational Stress and Well Being*. JAI Press, pp. 293–333. Available at: [https://doi.org/10.1016/S1479-3555\(02\)02008-5](https://doi.org/10.1016/S1479-3555(02)02008-5).
40. Holmboe, M. (2018) 'On Academic Freedom for Police Researchers', *Nordisk politiforskning*, 5(2), pp. 124–140. Available at: <https://doi.org/10.18261/issn.1894-8693-2018-02-03>.
41. Hosmer, D.W., Lemeshow, S. and Sturdivant, R.X. (2013) *Applied Logistic Regression, 3rd Edition*, *Wiley Series in Probability and Statistics*. Wiley. Available at: <https://www.wiley.com/en-gb/Applied+Logistic+Regression%2C+3rd+Edition-p-9780470582473> (Accessed: 25 February 2023).

42. Hübler, O.; *et al.* (2000) *Paid and Unpaid Overtime Working in Germany and the UK*. 133. Bonn: Bonn: Institute for the Study of Labor (IZA). Available at: <http://hdl.handle.net/10419/20972> (Accessed: 12 March 2023).
43. Ibrahim, H. *et al.* (2009) 'Uncertainty management in software engineering: Past, present, and future', in *2009 Canadian Conference on Electrical and Computer Engineering*. IEEE, pp. 7–12. Available at: <https://doi.org/10.1109/CCECE.2009.5090081>.
44. Illowsky, B. and Dean, S. (2013) *Introductory of Statistics*. OpenStax, Rice University.
45. al jafa, H. (2020a) 'A Case Study for the CRM Software Selection Process in a Transportation Company Using an Integrated AHP and QFD Approach', *SEA-Practical Application of Science*, 8(24), pp. 337–351. Available at: https://dea.lib.unideb.hu/bitstream/2437/299337/1/FILE_UP_0_Case%20study.pdf (Accessed: 22 February 2023).
46. al jafa, H. (2020b) 'Improving ERP software selection process by integrating QFD with AHP approach', *Network Intelligence Studies*, 8(16), pp. 157–167. Available at: <https://www.ceeol.com/search/article-detail?id=945821> (Accessed: 22 February 2023).
47. Al Jafa, H., Jihad, F. and Várallyai, L. (2022) 'The Role of Agile Management in HRM Environment Change', *Journal of Agricultural Informatics*, 12(2). Available at: <https://doi.org/10.17700/jai.2021.12.2.606>.
48. Jain, N. (2021) 'Survey Versus Interviews: Comparing Data Collection Tools for Exploratory Research', *The Qualitative Report* [Preprint]. Available at: <https://doi.org/10.46743/2160-3715/2021.4492>.
49. Jalonen, H. (2011) 'The uncertainty of innovation: a systematic review of the literature', *Journal of Management Research*, 4(1). Available at: <https://doi.org/10.5296/jmr.v4i1.1039>.
50. Johan Hauge, L., Skogstad, A. and Einarsen, S. (2007) 'Relationships between stressful work environments and bullying: Results of a large representative study', *Work & Stress*, 21(3), pp. 220–242. Available at: <https://doi.org/10.1080/02678370701705810>.
51. Junita, A. (2021) 'Agile HR Strategies: Prerequisite of Business Competitiveness in a Dynamic Environment', in *Proceedings of the 5th International Conference on Indonesian Social and Political Enquiries, ICISPE 2020, 9-10 October 2020, Semarang, Indonesia*. EAI. Available at: <https://doi.org/10.4108/eai.9-10-2020.2304778>.
52. Kairaitytė-Užupė, A., Ramanauskaitė, E. and Rudžionis, V.E. (2023) 'Scientific Information Analysis Using Text Analysis Tool "Voyant Tools"', *Information & Media*, 97, pp. 25–48. Available at: <https://doi.org/10.15388/Im.2023.97.57>.
53. Lee, D. (2000) 'An analysis of workplace bullying in the UK', *Personnel Review*, 29(5), pp. 593–610. Available at: <https://doi.org/10.1108/00483480010296410>.
54. LinkedIn (2021) *Using Boolean Search on LinkedIn*, *LinkedIn help centre*. Available at: <https://www.linkedin.com/help/linkedin/answer/75814/using-boolean-search-on-linkedin?lang=en> (Accessed: 21 May 2021).
55. M. Muhsin (2021) 'Legal Protection for Indonesian Freelance Workers in Law Number 11 of 2020 Concerning Work Creation: Analysis of Changes in Legal Protection for Freelance Workers in Indonesia after the Omnibus Law', *International Journal of Law and Politics Studies*, 3(2), pp. 56–64. Available at: <https://doi.org/10.32996/ijlps.2021.3.2.8>.

56. Manchanda, H. *et al.* (2017) 'Agile Methods for Software Development', *Imperial journal of interdisciplinary research* [Preprint].
57. Marinho, M. *et al.* (2014) 'A Systematic Review of Uncertainties in Software Project Management', *International Journal of Software Engineering & Applications*, 5(6), pp. 1–21. Available at: <https://doi.org/10.5121/ijsea.2014.5601>.
58. Maurer, F. and Melnik, G. (2006) 'Agile methods: moving towards the mainstream of the software industry', *International Conference on Software Engineering*, pp. 1057–1058. Available at: <https://doi.org/10.1145/1134285.1134503>.
59. McAvoy, B.R. and Murtagh, J. (2003) 'Workplace bullying.', *BMJ: British Medical Journal*, 326(7393), pp. 776–7. Available at: <https://doi.org/10.1136/bmj.326.7393.776>.
60. McHugh, O., Conboy, K. and Lang, M. (2011) 'Using Agile Practices to Build Trust in an Agile Team: A Case Study', in *Information Systems Development*. New York, NY: Springer New York, pp. 503–516. Available at: https://doi.org/10.1007/978-1-4419-9790-6_40.
61. McHugh, O., Conboy, K. and Lang, M. (2012) 'Agile Practices: The Impact on Trust in Software Project Teams', *IEEE Software*, 29(3), pp. 71–76. Available at: <https://doi.org/10.1109/MS.2011.118>.
62. McKinney, V.R. *et al.* (2008) 'Women and men in the IT profession', *Communications of the ACM*, 51(2), pp. 81–84. Available at: <https://doi.org/10.1145/1314215.1314229>.
63. Merkel, J. (2019) "Freelance isn't free." Co-working as a critical urban practice to cope with informality in creative labour markets', *Urban Studies*, 56(3), pp. 526–547. Available at: <https://doi.org/10.1177/0042098018782374>.
64. Meyer, B. (2014) *Agile!: The good, the hype and the ugly, Agile!: The Good, the Hype and the Ugly*. Springer International Publishing. Available at: <https://doi.org/10.1007/978-3-319-05155-0>.
65. Michie, S. and Nelson, D.L. (2006) 'Barriers women face in information technology careers', *Women in Management Review*. Edited by R.J. Burke, 21(1), pp. 10–27. Available at: <https://doi.org/10.1108/09649420610643385>.
66. Moran, A. (2015) *Managing Agile, Managing Agile: Strategy, Implementation, Organisation and People*. Cham: Springer International Publishing. Available at: <https://doi.org/10.1007/978-3-319-16262-1>.
67. Mordi, A. and Schoop, M. (2020) 'MAKING IT TANGIBLE – CREATING A DEFINITION OF AGILE MINDSET', *ECIS 2020 Research Papers* [Preprint]. Available at: https://aisel.aisnet.org/ecis2020_rp/175 (Accessed: 4 December 2023).
68. Morton, S. and Redmond, P. (2015) 'The odd one out: revisiting and investigating the gender imbalance in ICT study choices', *Journal of Applied Computing and Information Technology*, 19(1), pp. 2–3.
69. N. K. Saunders, M., Lewis, P. and Thornhill, A. (2015) *Research Methods for Business Students*. 7th edn. Pearson Education. Available at: www.pearson.com/uk (Accessed: 7 March 2023).
70. Na, K.-S. *et al.* (2004) 'Uncertainty profile and software project performance: A cross-national comparison', *Journal of Systems and Software*, 70(1–2), pp. 155–163. Available at: [https://doi.org/10.1016/S0164-1212\(03\)00014-1](https://doi.org/10.1016/S0164-1212(03)00014-1).

71. Noronha, E. and D’cruz, P. (2018) ‘Indian freelancers’ experiences of bullying on online labour markets: Insights into digital workplaces in the informal economy’, *Indian Perspectives on Workplace Bullying: A Decade of Insights*, pp. 147–171. Available at: https://doi.org/10.1007/978-981-13-1017-1_6/COVER.
72. NOTELAERS, G. *et al.* (2011) ‘Exploring Risk Groups Workplace Bullying with Categorical Data’, *Industrial Health*, 49(1), pp. 73–88. Available at: <https://doi.org/10.2486/indhealth.MS1155>.
73. Ortega, A. *et al.* (2009) ‘Prevalence of workplace bullying and risk groups: a representative population study’, *International Archives of Occupational and Environmental Health*, 82(3), pp. 417–426. Available at: <https://doi.org/10.1007/s00420-008-0339-8>.
74. Ozkan, N. and Gok, M.S. (2020) ‘Investigation of Agile Mindset Elements by Using Literature Review for a Better Understanding of Agility’, in *2020 Turkish National Software Engineering Symposium (UYMS)*. IEEE, pp. 1–6. Available at: <https://doi.org/10.1109/UYMS50627.2020.9247073>.
75. Paixao, M. and Souza, J. (2015) ‘A robust optimization approach to the next release problem in the presence of uncertainties’, *Journal of Systems and Software*, 103, pp. 281–295. Available at: <https://doi.org/10.1016/j.jss.2014.09.039>.
76. Perminova, O., Gustafsson, M. and Wikström, K. (2008) ‘Defining uncertainty in projects – a new perspective’, *International Journal of Project Management*, 26(1), pp. 73–79. Available at: <https://doi.org/10.1016/j.ijproman.2007.08.005>.
77. Pietersen, C. (2007) ‘Interpersonal bullying behaviours in the workplace’, *SA Journal of Industrial Psychology*, 33(1). Available at: <https://doi.org/10.4102/sajip.v33i1.256>.
78. Powell, R.R. (2006) ‘Evaluation Research: An Overview’, *Library Trends*, 55(1), pp. 102–120. Available at: <https://doi.org/10.1353/lib.2006.0050>.
79. Rai, A. and Upasna, A.A. (2016) ‘Workplace bullying: A review and future research directions’, *South Asian Journal of Management*, 23(3), pp. 27–56. Available at: https://www.researchgate.net/profile/Arpana-Rai/publication/310604860_Workplace_Bullying_A_Review_and_Future_Research_Directions/links/591550a9aca27200fe4eb2fb/Workplace-Bullying-A-Review-and-Future-Research-Directions.pdf (Accessed: 1 March 2023).
80. Ram*, V. and Vijayakumar, Dr.T. (2019) ‘Effects of Agile adoption on Trust, Knowledge Sharing and Collaboration in IT Organizations’, *International Journal of Innovative Technology and Exploring Engineering*, 8(12), pp. 2652–2655. Available at: <https://doi.org/10.35940/ijitee.K2219.1081219>.
81. Ryan, F., Coughlan, M. and Cronin, P. (2009) ‘Interviewing in qualitative research: The one-to-one interview’, *International Journal of Therapy and Rehabilitation*, 16(6), pp. 309–314. Available at: <https://doi.org/10.12968/ijtr.2009.16.6.42433>.
82. Sampsel, L.J. (2018) ‘Voyant Tools’, *Music Reference Services Quarterly*, 21(3), pp. 153–157. Available at: <https://doi.org/10.1080/10588167.2018.1496754>.
83. Saris, W. and Coenders, G. (1995) ‘Categorization and measurement quality. The choice between Pearson and Polychoric correlations’, in *The Multitrait-Multimethod approach to evaluate measurement instruments*, pp. 125–144.

84. Schilling, J. (2006) 'On the Pragmatics of Qualitative Assessment', *European Journal of Psychological Assessment*, 22(1), pp. 28–37. Available at: <https://doi.org/10.1027/1015-5759.22.1.28>.
85. Stamelos, I. and Angelis, L. (2001) 'Managing uncertainty in project portfolio cost estimation', *Information and Software Technology*, 43(13), pp. 759–768. Available at: [https://doi.org/10.1016/S0950-5849\(01\)00183-5](https://doi.org/10.1016/S0950-5849(01)00183-5).
86. Stofer, K.A. (2019) 'Preparing for One-on-One Qualitative Interviews: Logistics', *EDIS*, 2019(4), p. 4. Available at: <https://doi.org/10.32473/edis-wc339-2019>.
87. Sundalangi, Y. (2018) 'THE JURIDICAL REVIEW OF FREELANCE WORKERS BASED ON THE PRINCIPLES OF JUSTICE', *Tadulako Law Review*, 3(1), p. 40. Available at: <https://doi.org/10.22487/j25272985.2018.v3.i1.8952>.
88. Tamás, G. (2009) 'Munkaviszony, önfoglalkoztatás és a közöttük lévő szürke zóna', *Európai vita a munkajog identitás-válságáról és a gazdaságilag függő munka szabályozásáról*. *Esély*, 6. Available at: http://esely.org/kiadvanyok/2009_6/GYULAVARI.pdf (Accessed: 20 May 2021).
89. Tseng, M.-L. (2011) 'Using a hybrid MCDM model to evaluate firm environmental knowledge management in uncertainty', *Applied Soft Computing*, 11(1), pp. 1340–1352. Available at: <https://doi.org/10.1016/j.asoc.2010.04.006>.
90. Ubayashi, N., Kamei, Y. and Sato, R. (2019) 'When and Why Do Software Developers Face Uncertainty?', in *2019 IEEE 19th International Conference on Software Quality, Reliability and Security (QRS)*. IEEE, pp. 288–299. Available at: <https://doi.org/10.1109/QRS.2019.00045>.
91. [www.calculator.net](https://www.calculator.net/sample-size-calculator.html?type=1&cl=95&ci=8&pp=50&ps=904&x=104&y=26) (2023) *Sample Size Calculator*, www.calculator.net. Available at: <https://www.calculator.net/sample-size-calculator.html?type=1&cl=95&ci=8&pp=50&ps=904&x=104&y=26> (Accessed: 8 March 2023).
92. Wynn, M. (2015) 'Organising freelancers: a hard case or a new opportunity?'



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Folyóiratcikkek, tanulmányok (4)

- Al Jafa, H., Várallyai, L.:** Using Agile in Implementing Agriculture AI Projects and Farm Management.
Journal of Agricultural Informatics. 14 (1), 1-12, 2023. EISSN: 2061-862X.
DOI: <https://doi.org/10.17700/jai.2023.14.1.684>
- Al Jafa, H., Fraij, J. K. I., Várallyai, L.:** The Role of Agile Management in HRM Environment Change.
Journal of Agricultural Informatics. 12 (2), 37-45, 2021. EISSN: 2061-862X.
DOI: <http://dx.doi.org/10.17700/jai.2021.12.2.606>
- Al Jafa, H.:** A Case Study for the CRM Software Selection Process in a Transportation Company Using an Integrated AHP and QFD Approach.
SEA-Practical Application of Science. 8 (24), 337-351, 2020. EISSN: 2360-2554.
- Al Jafa, H.:** Improving ERP Software Selection Process by Integrating QFD with AHP Approach.
Network Intelligence Studies. 8 (16), 157-167, 2020. EISSN: 2344-1712.

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