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**FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION**

**HUMAN RESOURCES MANAGEMENT**

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**MASTER THESIS**

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| <b>Nuotolinio darbo poveikis<br/>darbuotojų įsitraukimui,<br/>moderuojant skirtingoms kartoms</b> | <b>Effects of Remote Work on<br/>Employee Engagement<br/>Moderated by Different<br/>Generations</b> |
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# **INTRODUCTION**

## **Relevance of the Topic**

In particular, an examination of generational interpretations of the implications of remote work for employee engagement is essential for understanding how different age groups are managing these effects. Kahn (1990) defined engagement as a combination of emotional and psychological attachment which is crucial for organizational success. The different interaction with work, technology, and adaptability among the generations (Twenge, 2010). For example, Generation Z (born 1997 to 2012) prefers written over verbal communication and prioritizes work-life balance more than Millennials (Gurchiek, 2020).

Technological tools and flexible regulations will become important for balancing work and life in multiple generations. Organizations must respond to these demands to establish productive remote work (Deloitte, 2021). To provide a quote, a few tailored strategies can be balancing the use of digital tools and team-building activities to address generational needs (Wong et al., 2021). Understanding such dynamics, however, allows for the understanding of trends and long-term approaches that foster effective engagement.

## **The Level of Exploration of the Topic**

This thesis seeks to look further into the relationship between employee engagement and remote work settings, considering generational differences in engagement levels. Building from prior literature by other scholars, this article explores the various elements determining why employees from Generations X, Y, and Z experience varying levels of technology adaptability and work-life balance that influence their communicating preferences for their differing perceptions of engagement. Synthesizing prior research, this study brings in greater understanding of unique traits and experiences of each generational cohort working remotely. In addition, the study identifies how tailored remote work strategies for different generational needs enhance employee satisfaction, engagement, and organizational commitment as a whole. It will be easier for an organization to facilitate a motivated and productive workforce by matching their policies with such insights.

## **The Novelty of the Master Thesis**

While Toscano & Zappalà (2020) focused on how remote work enhances engagement by fostering a better work-life balance and self-autonomy, not that many studies explore such

generational differences. Although the contribution of remote work toward better engagement is realized, the moderating role played by generational differences is not well explored. This thesis will fill this gap by investigating how the remote work condition influences employee engagement differently in Generation X, Millennials, and Generation Z, focusing on the evolving contexts of Azerbaijan and Lithuania.

With the great increase in remote work rates, it is crucial for managers to understand the generational responses to such changes (McKinsey & Company, 2021). Earlier research in this vein has focused on generational engagement, such as Deloitte, but this study takes a step further by converting insights into actionable items with which to manage multigenerational teams. This thesis contributes to new insights about engagement strategies concerning different generational groups and contributes to both theory and practical management by enhancing productivity within a digitally diverse workforce.

### **The Problem of the Master Thesis**

The shift to working from home has brought along its own set of challenges and opportunities, including flexibility and autonomy, but also a set of disengagement issues. Although working from home can enhance productivity, it doesn't have the same effect on engagement across generations. Generation X, Millennials, and Generation Z all have different expectations, technological skills, and priorities in work-life that define their engagement in remote settings.

Despite the growing trend of remote work, few studies address how such generational differences impact engagement outcomes. This research tries to fill this gap by investigating the influence of the remote work environment on different age cohorts with regard to their engagement levels, hence helping organizations design effective and inclusive policies.

### **Aim of the Master Thesis**

The aim of this Master's thesis is to evaluate the generational disparities within the remote work context, specifically focusing on the distinct needs, behaviors, and work preferences of Generation X, Millennials, and Generation Z. By determining how remote work influences employee engagement across these diverse generational cohorts, this study seeks to reveal practical strategies that organizations can adopt to foster higher engagement and commitment among employees from different age groups.

## **Objectives of the Master Thesis**

The following objectives are set to guide the research:

1. To conduct a theoretical analysis of employee engagement, focusing on strategies to enhance engagement across generations.
2. To evaluate the relationship between remote work and employee engagement among various generational cohorts.
3. To perform an empirical study on how generational differences such as technology use and communication preferences affect remote work engagement.
4. To develop practical recommendations for improving engagement across generations based on empirical findings.
5. To explore barriers to engagement caused by generational disparities in remote work settings.
6. To apply a quantitative research approach to analyze the relationship between remote work, engagement, and generational differences.

## **The Methods Deployed by the Master's Thesis**

The study will take a quantitative approach by administering questionnaires to employees across different generations Generation X, Millennials and Generation Z in remote work settings. To assess the relationship between remote work, employee engagement and generations' changes, the research will utilize statistical analysis, regression modelling and moderation analysis. Moreover, the research will review the available literature on the topic to enhance the context of the findings further and to ensure that empirical recommendations are developed for increasing employee engagement in remote work environments.

## **The Description of the Structure of the Master Thesis**

The thesis is divided into four main sections:

**Scientific Literature Review:** This section reviews the available research with regard to remote work, employee engagement, and generational differences, synthesizes key theories, and determines where gaps exist that this study has addressed.

**Empirical Research Desing:** This section discusses the research design, questionnaires, sampling strategy, and techniques for analysis that were considered for this study to understand generational differences in remote working settings.

**Analysis of Empirical Results:** The section that follows presents the findings from the statistical analysis, taking into consideration how remote work affects engagement across different generational cohorts.

**Conclusions and Recommendations:** In the last section, it summarizes the findings and interpreting them into practical recommendations on how to increase engagement by adapting remote work strategy to the needs of each diverse generation.



# **1. PERSPECTIVES FOR UNDERSTANDING REMOTE WORK, EMPLOYEE ENGAGEMENT AND GENERATIONAL DIFFERENCES**

The growth of remote work arrangements has brought about a fundamental transformation in the modern workplace. Employee dedication, zeal, and a sense of ownership are critical factors in their professional success. There may be benefits and drawbacks to the shift to remote work in terms of employee engagement. While this research is more complex because it also considers the same perspective under the context of generational disparities, several earlier studies and the background perspective of the study concentrated on the relationship between remote work and employee engagement. This study thesis looks at variables such as communication problems, freedom, flexibility in approach, and social isolation. The study will examine how several generations Gen Z, Millennials, and Generation X perceive remote work environments; how those perceptions affect them, and how productively they work. The communication styles and interests of these generations may also differ. This assessment would include a thorough grasp study of the intricate relationship between employees' engagements, distant work environments, and generational differences.

## **1.1 The Concept of Employee Engagement**

Research-based definitions of engagement have been offered by several human resource management consulting organisations. Engagement is defined by the Chartered Institute of Personnel and Development, or CIPD, as possessing a sense of responsibility towards the company and its values as well as a readiness to assist colleagues. It is more than just motivation and extends beyond job happiness (Kicheva, 2013). Aon Hewitt, formerly known as Hewitt Associates, defines it as the intellectual and emotional engagement of staff members with the organisation and its operations. Positive remarks about the firm are typically made by engaged workers, who are eager to participate in it and who go above and above to make sure the company succeeds. Employee responses to the "say, stay, and strive" instruction can be used to determine employee engagement levels and serve as a predictor of corporate success (Ng; Lyons, & Schweitzer, 2012).

Although there is not a single definition for the term, employee engagement is a crucial business part of the success of an organization. Many researchers and practitioners hold the

belief that employee engagement significantly and quantitatively affects a company's ability to make money and build wealth (Toscano & Zappala, 2020). For this reason, in recent years, employee engagement has received increased attention. An increasing number of firms understand that success requires engaged employees (Toscano & Zappala, 2020). Employee involvement has several advantages for both employees and clients (Baldoni, 2013). When they are interested in their work, passionate workers put in more hours and generate more. They are committed to the organisation and approach their work with enthusiasm and vigour. The best employees are flexible, look for ways to improve their work, and want each person to be accountable for the results. Higher customer satisfaction results from increased productivity, which boosts sales and profits for the business (Chanana, 2020).

The development of remote work practices highlights the necessity for businesses to adjust to evolving employee preferences and work trends. It also represents a dynamic movement in how work is conducted and managed. Over time, there have been major turning points in the acceptance of remote work, which is indicative of a slow change in organisational culture and work practices. The first step towards the widespread adoption of remote work practices was the emergence of the telecommuting idea. Organisations looked into the idea of allowing employees to work from locations other than traditional office settings, which formed the foundation for remote work arrangements (Razmerita; Peroznejad; Panteli & Kärreman, 2021).

Cloud computing, collaboration tools, and high-speed internet have contributed to the rise in popularity of remote work. This has enhanced the process of working remotely by improving the capability of teams that are separated by a large distance to work and communicate with each other easily and effectively (Soga; Ogunfodun; Mariano; Nasr & laker, 2022). The COVID-19 pandemic accelerated remote work around the world. The need for organizations to develop remote work policies that would ensure the safety of employees and business continuity increased the rate of transition toward remote work practices. This achievement marked a critical shift in the way companies view and accept remote work (Hajjami, & Crocco 2023).

The emergence of hybrid models which combine on-site, and remote work is one of the most important developments in the evolution of remote work approaches (Razmerita, et al,

2021). More and more organisations are opting for hybrid models in order to both allow employees a degree of independence and retain room for interaction. In this regard, this achievement indicates an intentionally created mix of on-site and off-site work in order to satisfy various needs: of the organization and of its employees (Soga, et al, 2022). Since companies have realised the advantages of working remotely in terms of productivity, cost savings, and employee satisfaction, it has become a viable work arrangement. Reaching denotes a change in the way companies view remote work from something that is seen as advantageous to something fundamental to workplace culture (Khatib; Hashimi, & Ketbi, 2023). The development of tools and technologies that facilitate remote work is responsible for the increasing use of remote work practices.

Due to the physical and emotional separation from workplace organisations, teleworking employees typically have weaker associations with them (Wiesenfeld et al., 1999). Instead, they think of themselves as more independent (Guimaraes, Dallow, 1999). Furthermore, as the percentage of remote work rises, staff members might not be as aware of the company's physical presence, office atmosphere, and logos because these cues are becoming less and less common in their daily lives (Wiesenfeld et al., 1999). This suggests that extended remote work will result in a decrease in involvement.

The argument goes that even though the aforementioned researchers' findings were reached more than 20 years ago, modern workers are not necessarily physically and psychologically isolated from their employment, hence they are not fully applicable (Bailey & Kurland, 2002). Employees can establish real-time video connections with modern information and communication systems like Teams, Zoom, Google Meet, and others, which strengthens their mental connection to their work even when they are not physically present in the company's office (Mann & Holdsworth, 2003).

Engagement is defined as a sustained, positive affective-motivational state of fulfillment in workers and is typified by vigour, devotion, and absorption, according to Schaufeli et al. (2002) and Schaufeli and Bakker (2004). Vigour represents the energy and resilience employees bring to their work, characterized by enthusiasm and a willingness to persevere in challenging situations. Devotion, or dedication, reflects the strong emotional connection workers feel towards their job, signifying a deep sense of pride, significance, and

purpose in what they do. Also, absorption refers to the state of being fully immersed in work, where employees are so bound that they may ignore track of time, experiencing a high level of focus and concentration. Together, these components create a comprehensive understanding of employee engagement, where individuals feel energized, committed, and deeply involved in their tasks.

Furthermore, an increasing number of companies are offering their staff members the chance to establish psychological connections with them through a range of creative programs, including video links, virtual workers, and even virtual coffee dates via the aforementioned platforms (Twenge, 2010).

According to University Credit Union research, people who have more freedom at work become more effective team members, as Tuyo (2020) reports. Teams that operate remotely are forced to concentrate on shared objectives, which promotes efficient task coordination (Bailey & Kurland, 2002). Teleworkers have more freedom to choose how, when, and under what circumstances to complete their work responsibilities because they are not physically supervised (Kossek, Thompson, 2016). Since they are unable to experience the work atmosphere at home and are often sidetracked by family members, remote workers encounter unique challenges that cause a split between their personal and professional lives (Twenge, 2010). Studies have shown, according to Chaudhary et al. (2021), that when workers work remotely, their personal life suffer significantly since there is no distinct boundary between work and family time. It might be difficult to handle arguments and misunderstandings between employees and their families in this circumstance. Additionally, according to Chaudhary et al. (2021), the number of children among employees has a detrimental impact on employee engagement.

## **1.2 Remote Work and Employee Engagement**

The idea of remote work, often known as telecommuting or telework, has evolved, especially in the wake of the recent rise in remote work caused by the COVID-19 pandemic. Employers' and employees' perceptions of remote work arrangements have evolved throughout the history of these practices (Kniffin; Narayanan; Anseel; Antonakis; Ashford; Bakker, & Vugt, 2021). The earliest mention of telecommuting dates back to the early 1970s, which is also the time when remote work practices started to take shape. At first, only a tiny portion of

employees were able to work remotely, and it was frequently viewed as a benefit rather than a standard procedure (Chong & Sin, 2023). Technology has revolutionised remote work habits, particularly with the widespread availability of cloud computing, collaboration tools, and high-speed internet. These technological advancements that have made it simpler for employees to work from any location have led to a notable growth in the use of remote work (Haque, 2023).

Organisations have gradually shifted their culture to embrace remote work as a viable and productive work arrangement. The traditional mindset that equated productivity with physical presence in the office has given way to a more flexible approach that values outcomes over hours worked in a specific location (Upskillist, n.d.). The growing acceptance of remote work was sparked by the COVID-19 pandemic. To maintain company continuity, organisations that had previously been reluctant to accept remote work were compelled to put procedures in place. This abrupt change brought to light the value of adaptability and flexibility in work procedures (Upskillist, n.d.). It is anticipated that organisations would concentrate on striking a balance between the advantages of face-to-face cooperation and the flexibility of remote work. To serve a diversified workforce that spans multiple generations, this hybrid approach will necessitate creative HR approaches (Haque, 2023).

As remote work continues to evolve, organizations need to prioritize employee engagement to ensure that remote workers remain connected, motivated, and productive. Fostering employee engagement in a remote work environment requires strategies like frequent communication, virtual team-building exercises, and provisioning of the required tools and resources for remote work (Upskillist, n.d.).

Another LinkedIn post highlights how varying work styles, life experiences, and values among generations can cause miscommunications and disputes in the office when discussing a generational study of workplace participation. It also highlights how important it is to identify and address these differences to encourage a more engaged workforce (McCullough, 2024).

Gegerfelt's (2023) study revealed that although management support is essential for remote work to thrive, the influence on worker productivity is not statistically significant at the 5% level. Xia (n.d.) carried out research to find out how employee engagement is affected by remote employment. The study emphasises how crucial it is to have supportive networks, efficient communication, and teamwork in order to implement these changes. There is a dearth

of research on the engagement cultures of remote workers and the factors influencing their levels of involvement. Research indicates that the work culture encountered by remote workers restricts their prospects for professional growth, decreases their prominence within the company, and heightens their sense of seclusion (Lee, 2018).

A company's performance is significantly impacted by the loyalty, happiness, and engagement of its workforce. The biggest problem faced by corporations is managing their personnel as thinking subjects; effective human resource management helps them achieve this. The development and encouragement of productive employee-employer cooperation is correlated with employee engagement and results in the accomplishment of organisational objectives. Engaged workers are motivated to perform better in their roles and at work by company representatives, who inspire them. They also have faith in the organisation. They will also go above and above to guarantee the company's success. They stand out from other employees due to their capacity to be a motivated and productive worker.

The disengaged employees work as little as possible, have no passion for what they do, and view it as a waste of time to keep their salary. Disengaged workers are those who no longer have a strong enthusiasm for their work, which negatively impacts the organization's performance (Toscano, & Zappalà, 2020). Businesses typically remember that motivated workers are more productive at work, which in turn results in happier customers and, eventually, higher sales and profits for the business (Chanana, 2020). Global businesses were greatly impacted by the COVID-19 epidemic, which also presented hitherto unheard-of difficulties for stakeholders including HR directors and staff (Galanti; Guidetti; Mazzei; Zappalà, & Toscano, 2021). HR managers now have to handle more duties like managing remote work, keeping staff morale high, making decisions about employee termination, and employee health care (The Economist, 2020).

As to Luthans (2002), an employee is deemed engaged if they possess a strong inclination to remain with the company and if they acknowledge and subscribe to its goals and principles. Maslach et al. (2001) identified involvement, efficacy and energy as traits of job engagement. According to Shuck & Wollard (2010), employee engagement occurs when each worker's behavioural, emotional, and mental states are in harmony with the organization's goals. According to Wood et al. (2020), a pleasant and rewarding motivational state linked to

occupational welfare is called employee engagement. This description agrees with what other scholars have said. Positive antecedents are frequently associated with higher levels of engagement, while negative antecedents, including abusive supervision, are associated with lower levels of engagement (Bailey et al., 2017).

Business challenges posed by COVID-19 have made it even more crucial for engaged employees to survive and thrive in the current challenging environment (Vyas, & Butakhieo, 2021). By 2020, the majority of businesses will prioritise employee engagement. Businesses were compelled to adjust to new workplace norms, such as remote employment (Gartner (2020). Due to the COVID-19 epidemic, business growth and advancement have become nearly impossible in every area, creating a very unsettling and uncertain situation. The human resources that are a part of these organisations have also suffered greatly (Moss, & Metzler, 2021). Given the lockdown and other limitations, the majority of companies have policies allowing employees to operate remotely (Kundu, Nag, 2021).

Work that allows people to carry out their duties outside of a traditional office setting usually from home or other remote locations – is known as telecommuting, virtual, or remote work. Technological advancements that enable smooth communication and cooperation across geographic borders are primarily responsible for the development in popularity of this kind of work (DeFilippis; Impink; Singell; Polzer, & Sadun, 2020). Throughout human history, the advancement of unmistakable development has always required human work (Chatterjee, Chaudhuri, & Vrontis, 2022). Hard-working people have made a substantial contribution to varied degrees of productivity and success in a wide range of businesses and activities (Jämsen, Sivunen & Blomqvist, 2022). It's interesting to note that productivity has been simpler to attain as a result of the emergence of many working patterns, each tailored to the requirements and conditions of its era. Important events like the global pandemic have caused a huge transformation in the modern workplace (Cook, 2023).

It is widely acknowledged that a key element in determining an organization's performance is employee engagement, which is described as an individual's drive, emotional investment, and dedication to their work and organisation. Higher levels of creativity, productivity, and job happiness are more likely to be displayed by engaged employees, which improves performance results and organisational success. Understanding how remote work

affects employee engagement has become a critical topic for professionals, academics, and business executives. The complex and dynamic environment that arises at the nexus of remote work and employee engagement is shaped by a multitude of human traits, external influences, and internal corporate policies. In addition, the phenomena would be more distinctive in the presence of generational disparities.

### **1.3 Generational Differences in the Workforce**

Each generation has a unique way of perceiving and living, which influences how they engage within remote work environments, particularly concerning values, attitudes, and characteristics in their professional lives. This differentiation shapes how they engage in their work, especially in remote settings. The workforce today is therefore composed of three distinct generations: Generation X, Millennials, and Generation Z. In fact, assigning people to these generations differs across regions of the world due to varying socio-economic environments, technological access, and cultural differences. In some regions, technological advancements or economic shifts occurred at different times, which affects how these generational characteristics get revealed.

Generation X, born between 1965 and 1980, appreciates a balanced life with independence, flexibility, and resilience. They value remote work for the autonomy it offers in managing their careers in such settings (Twenge, 2010). This generation is somewhat cooperative and adaptable, though they still place importance on in-person interaction for social networking (Lyons & Kuron, 2014). In different regions, Generation X might exhibit varying levels of digital proficiency, depending on the local technological developments during their formative years.

On the other hand, Millennials who were born between 1981 and 1996, are the largest generational group in the workforce and are well-suited to remote work environments due to their proficiency with digital tools for communication and collaboration. They value opportunities for career growth and development, coupled with flexibility and meaningful work (Deal, Altman, & Rogelberg, 2010). Millennials are enthusiastic learners who seek balanced work-life flexibility (Smith & Nichols, 2015). They also value community and regular feedback, though this can be a challenge in remote work settings. Nonetheless, they enjoy flexibility and digital interaction (Myers & Sadaghiani, 2010). However, in regions where



access to digital tools has been limited or constrained, Millennials may not universally exhibit the same tech-savviness.

Generation Z, born from 1997 onwards, is expected to appreciate flexibility and a good work-life balance much like Millennials but with an even stronger appreciation for technological integration and digital communication (Francis & Hoefel, 2018). Early research on Gen Z suggests they are going to be pretty comfortable working remotely because they can interact without any problem via virtual interaction and digital tools (Schroth, 2019). On the other hand, they may also face isolation-related challenges and require further structured guidance in the initial stages of their careers, as claimed by Fromm and Read (2018). In areas where the digital economy is not fully developed, the practice of Generation Z in working remotely may take other forms, depending on how fast technology is developing and the form of education within those specific regions.

In other words, while large characteristics may define these generations, regional socio-economic conditions serve to create some variation in how they will engage in remote work, and these differences bear great importance to a contextual understanding of generational differences.

Generational differences in work value, technology capability, and communication preference are at the heart of employee engagement in remote work situations. For example, whereas Generation Z requires structured mentoring and social interactions to feel motivated, Johnson & Ng, 2016 contend that remote work policies will have to be crafted to fit the diverse needs of employees if overall employee engagement and productivity is to be improved.

Employee engagement from the implications of working remotely is going to differ because of one generational cohort, technology competency level, desired work pattern, and communication method (DeFilippis; Impink; Singell; Polzer, & Sadun, 2020). The millennial and Gen Z employees are among the digital natives who probably have more familiarity with technologies in their communication and patterns of working remotely, as indicated by Ng, Schweitzer, and Lyons (2019). Lakshmi, Rajadharani, Ramvignesh, & Ranjani (2023) analysed in one of the research works that the Generation X employees, because of the generational difference and not much familiarity with the technology, might need to have additional support and training to cope with the challenge of remote working environments.

The difference between the understanding of different generations, this research topic will be more significant and impactful on the association between remote work and employee engagement, providing a distinctive and intricate issue. According to Jamaludin and Kamal (2023), the concept of remote work experience and generational acceptance have been diverse in various ages. Because they prioritise work-life balance and are more acclimated to digital tools, millennials in particular showed higher levels of involvement. Another research, conducted by Kurdy, Al-Malkawi, and Rizwan (2023); focused on the representation of changing policies and regulations for remote work to accommodate the satisfactory preferences and technological aptitude of successive generations. However, a remote work environment could also have some drawbacks, such as adopting new technologies in every space, and alienation could have an effect badly on actions; as per the research by Raj, Kumar, Sharman, Singh, Mahlawat, & Verma (2023).

Though is also the fact from the research that initially focused aspects, improved communication techniques, and planned work could mitigate the challenges and difficulties. The complicated relationship between generational disparities, remote work, and employee engagement is often highlighted by empirical research, which also emphasises the need for organisations to have inclusive and flexible policies that support participation in remote work environments from all age groups. A research project at Walden University emphasized the importance of variables that influence the workers' degree of concentration. In another research work, Lee (2018) represented the significance of the planned initiatives for boosting employee satisfaction, morale and engagement, particularly for remote workers who have to deal with limited career prospectus with a sense of isolation.

#### **1.4 Barriers to Engagement in Remote Work Environments**

The paradigm of the shift to take into consideration the benefits, awards and positive mindfulness in remote interaction would be encouraging in these situations of advanced and acceptable policies (Pattnaik, & Jena, 2020). Lee (2018) analysed that all positively impacted factors should be employed for generational interactions. Technology advancements as well as shifting workplace norms may be to blame for the growing number of businesses implementing remote work. While there are benefits to working remotely, such as more freedom and flexibility, maintaining employee engagement can be challenging. Research indicates that

distant workers may experience emotions of isolation and a lack of social support, both of which can negatively impact their engagement levels (Golden, Veiga, & Dino, 2008). Further, Kurland and Bailey (1999) believe that introducing teleworking will be impossible without changing the protocols concerning channels of communication, techniques of cooperation, and performance evaluation. Such changes may influence the feelings of belonging of workers to their groups, employers, and employment, and, consequently, influence the general level of their engagement.

The concept of work today has been very well changed by the virtual workplace, facilitating factors such as flexibility, no wastage of time on commuting, and achieving work-life balance. However, working remotely provides multiple barriers to employee engagement that may have serious impacts on productivity and job satisfaction. These may be further substantially different across generational cohorts and require one to understand and address the underlying issues for better outcomes from a remote workforce in higher engagement and productivity. This section now discusses some of the main barriers to engagement in virtual work arrangements and differences across generations in these experiences.

However, many challenges in the context of engagement exist with remote working, especially technological challenges. With the necessity of leveraging digital communication and collaboration platforms to work remotely, issues in the level of an individual employee's proficiency exist in such technologies. Digital native Millennials and Generation Z largely intuitively know how these tools work but might struggle with issues on the dependability and sufficiency of their employers' technology (Schroth, 2019). These could be minimized by ensuring that the employees have appropriate technology that is reliable and by giving necessary training. Effective communication and collaboration are key elements for sustaining engagement in the remote work environment.

Collaboration tools and open communications are strategies that can help overcome barriers to engagement. However, engagement is a challenging component to maintain remotely, particularly for Gen X who is accustomed to in person relationships. Gen Xers may feel a sense of isolation which in return hinders communication (Ng, Schweitzer, & Lyons, 2010). Moreover, while the millennials and members of generation Z are used to

communicating on online platforms, they might still feel discontent due to lack of instant interaction in workspaces (Myers & Sadaghiani, 2010). Therefore, regular virtual meetings are recommended along with a shift in culture to one that is more open.

While working remotely can facilitate achieving a desirable balance between one's personal and working life, it can also create an overlap between the two spheres, resulting in emotional exhaustion. This problem is timely within the millennial generation, where the compulsion of being always on and available is usual (Smith & Nichols, 2015). Or employees on the X Generation should be able to have multiple family obligations, such employees may also be challenged to create boundaries between work and everyday life (Twenge, 2010). Organizations can foster work-life balance continuously by reinforcing employees to delineate boundaries, offering flexible hours arrangements and advocating for mental health and well-being.

One of the biggest barriers to engagement in a virtual work environment is social isolation, which includes those people who get their motivation from others and the dynamics of a team. For Generation X, who are accustomed to traditional office settings, this generation may feel lonely or disconnected when working remotely (Cahill, Giandrea, & Quinn, 2013). Millennials and Generation Z employees are brilliant in terms of virtual communication but may also suffer from social isolation and other mental health issues (Francis & Hoefel, 2018). A sense of community can be instilled through virtual team building, regular check-ins, or accessing organizations regarding the support of mental health resources.

The prime issue associated with the non-existence of direct supervision in the setting of remote work is the complications experienced in dealing with performance appraisal and employee growth, training and development. Around the globe, millennials are the employees who look up for guidance, in terms of feedback, on a constant basis (Myers & Sadaghiani, 2010). Generation X on the other hand, is entirely devoid of this requirement as they are very much independent, although they do have a need for reliance, and periodic acknowledgement. This goal can be resolved by engaging managers who are able to use flexible methods and engagement strategies along with regular constructive feedback and performance management tools designed for the remote working environment.

It is recommended that before implementing any of these strategies, one should first analyze the barriers that prevent employee engagement in remote work settings, as well as consider the peculiarities of every participating generation. For instance, Generation X needs workers without time constraints, Millennials appreciate active feedback, and Generation Z appreciates receiving help through a computer screen. Furthermore, intervention strategies which emphasize stress-relief activities, enhance communication processes, and encourage the feeling of warmth may overcome such barriers and help build a positive climate for remote employees.

### **1.5 Generational Differences in Remote Work: Values, Preferences, and Engagement Across Cohorts**

According to McCullough (2024) a difference in generational values, ways of working, and life experience can create misunderstandings and conflict at work environment. An understanding of how generational differences impact recruiting and retention would foster a long-term commitment and improve retention rates (Cooney, 2023).

The work of Nowakowski (2019) explains generational disparity in working remotely as a response to generational differences in understanding how distant work influences work engagement, which, in turn, is important for the businesses and the workforce. Anand and Acharya (2021) present the study of interested employees in working remotely and present strategies and ideas to get over poor engagement. A 2023 study by Chiguvi, Bakani, and Sepepe explores the advantages and disadvantages of working from home, apart from the effects on worker welfare brought about by the arrangements made for them during the COVID-19 pandemic.

Differences in work values and preferences between generations are a major factor in determining how remote work affects employee engagement in a variety of age groups. Comprehending the subtle differences among generations is imperative for companies seeking to customize remote work approaches to accommodate the varied requirements and inclinations of their multigenerational workforce, thereby augmenting total worker engagement in telecommuting settings.

Groups of people known as generational cohorts are those who, because of their birth year and the historical events that influenced their early years, have comparable experiences,

values, and attitudes. Since various generations may have different preferences, obstacles, and influences on engagement, understanding these generational cohorts is essential to investigating how distant work affects employee engagement. The generational cohorts listed below are pertinent to this review of the literature:

*Generation X (1965-1980):* Gen Xers, sometimes known as the "latchkey generation," are distinguished by their independence, cynicism, and flexibility. They may value the flexibility of remote work and are generally at ease with technology (Armah, & Li, 2023). Following in the footsteps of the Generation X disapproved of the preceding generation's work-centric way of life. Gen Xers are known for their independence, cynicism, and flexibility. They value flexibility in the workplace and are at ease with technology. According to Herrity (2023), members of Generation X prioritize achievements over traditional work arrangements and strive for a healthy work-life balance.

*Millennials:* Also referred to as Generation Y, millennials (1981–1996) make up the largest and most educated group in the workforce. They cherish feedback, teamwork, and a healthy work-life balance. In general, millennials are tech-savvy and amenable to working remotely (Cassidy, 2021). Gen Y, also referred to as millennials, are tech-savvy people that value purposeful work, flexibility, and work-life balance. They look for chances to collaborate, get feedback, and hone their skills. Rewards, acknowledgment, and fulfilling work that is consistent with their ideals are important to millennials (Johns Hopkins University, 2022).

*The Zoomers, or Generation Z (1997–2012),* are the most educated and diverse generation in history. They grew raised with technology and social media, making them digital natives. Gen Z values flexibility, autonomy, and opportunities for skill development. However, they may struggle with making connections and finding mentors in a fully remote environment (Mahmoud, Berman, Reisel, Fuxman, & Poley, 2023). Generation Z, the most diverse and educated generation, are digital natives who grew up with technology. They value flexibility, autonomy, and opportunities for personal and community growth. Gen Z seeks purposeful work that serves both themselves and the communities they care about. They are adaptable, and tech-savvy, and prioritize stability and flexibility in their work arrangements (Johns Hopkins University, 2022).

*Zillennials (1995-2000)*: This transitional generation, also known as the "Oregon Trail Generation," shares characteristics of both Millennials and Gen Z. They are tech-savvy, adaptable, and value both stability and flexibility in their work arrangements (Hajjami, & Crocco, 2023). Millennials, a transitional generation between Millennials and Gen Z, exhibit characteristics of both cohorts. They are tech-savvy and adaptable, and value stability and flexibility in their work environments. Millennials prioritize efficiency and personal development while seeking a balance between conventional organizational structures and contemporary work practices (Johns Hopkins University, 2022).

Workplace preferences, communication styles, and technology adoption are significantly influenced by generational variations. Investigating how distant work affects employee engagement requires an understanding of these variances, especially when taking into account the perspectives of various generations.

In distant work settings, utilising digital communication platforms like messaging applications, video conferencing, and project management systems can promote smooth intergenerational communication and collaboration (Herrity, 2023)

**Training and Support** Offer training sessions on effective virtual communication and collaboration can bridge generational gaps and ensure that all employees, regardless of age, feel comfortable and engaged in remote work interactions (Cooney, 2023)

Generation Xers are known for their adaptability, independence, and scepticism (Johns Hopkins University, 2022). They value flexibility in work arrangements and strive for a good work-life balance. Professionals from Generation X value outcomes over conventional work arrangements. Gen Xers value independence and work-life balance. In remote work environments, providing Gen X employees with flexible work schedules and possibilities for self-directed work can increase their engagement (Cooney, 2023)

Millennials place a high priority on meaningful work that is in line with their personal beliefs, feedback, teamwork, and work-life balance. They cherish chances for professional growth and recognition (Johns Hopkins University, 2022).

Millennials prioritize collaboration, feedback, and meaningful work. Leveraging digital collaboration tools and fostering a sense of purpose in remote work tasks can enhance engagement among Millennials (Fansury, January, Rahman, & Syawal, 2020)

Gen Z loves freedom, self-governance, and meaningful employment that promotes individual and collective development. They desire stability and flexibility in their work surroundings and are tech-savvy and adaptive (Johns Hopkins University, 2022).

Gen Z values flexibility, autonomy, and purposeful work. Providing opportunities for skill development, virtual mentorship, and meaningful projects can increase engagement among Generation Z employees working remotely (Cooney, 2023)

Helping others and loyalty are important to traditionalists. They might have a more formal communication style and frequently favor in-person interactions (Herrity, 2022).

When it comes to forming relationships and successfully communicating information, Digital communication channels including video calls, messaging applications, and email are preferred by younger generations such as Generation X and afterwards. They like prompt, effective communication and are at ease with technology (Herrity, 2022).

The comfort and skill level of each generation using digital technologies is influenced by their upbringing and exposure to technology. While older generations might need more assistance and training to properly use tech tools, younger generations such as Millennials and Gen Z are frequently early adopters of new technologies (Daniel, 2020).

The COVID-19 epidemic hastened the adoption of technology in all age groups, highlighting the importance of digital literacy and remote collaboration tools in the modern workplace. Developing inclusive and productive remote work environments requires an understanding of how various generations use technology (Tarkar, 2020).

Through acknowledgement and consideration of these generational variations in work habits, modes of communication, and technology usage, companies can customize their approaches to improve worker satisfaction and efficiency in remote work environments.

Generational differences play a huge role in the way different age groups view, interact with, and derive benefits from working remotely. They also impact employee engagement



when working remotely. Understanding these implications is very important to maximize employee engagement in remote work environments across generations.

Recognizing a difference in the level of comfort with technology across generations goes a long way toward ensuring each employee has equal access to the variety of remote working tools and resources. Moreover, training and support in place for the less technology-savvy employees enhance their engagement and productivity levels while working remotely (Harris, 2023).

Creating intuitive graphical user interfaces and mobile-friendly applications can cater for a broad age range and guarantee that all staff can easily and accurately operate and use remote working systems (Harris, 2023).

In this context encouragement, motivation and authentic leadership would be critical for aligning attitudes and purpose while experiencing remote work across generations (JK, 2020). According to Kaul, Shah, and El-Serag (2020), flexible work policies can satisfy the various requirements and inclinations of several generations can promote inclusivity and remote worker participation. Quality leadership can help adjust the fixed minds for establishing a collaborative, inclusive, and engaging remote work environment that fits the unique demands of employees across different age groups by taking into account the implications of generational disparities for engagement in remote work.

## **1.6 Enhancing Employee Engagement in a Multigenerational Remote Workforce**

Khatib et al. investigated remote work experience and employee engagement that project management software and virtual reality are the two main factors or tools that can be significantly change distinctive communication and team interaction (2023). The important point is the acceptance of these tools to show how business is doing well and how the practices of organizational needs, use of technology, and alternated dynamics can be utilized or is utilised with best practices to know people how interact and cooperate. Research indicates that the age gap affects the influence, adaptation and acceptance of remote work practices, with energetic employees indicating a stronger desire for flexible work hours (Sahul, & Lissillour, 2023).

According to Pumble (2024), the young generation demands more for a work-life balance, and which inclined to choose remote work arrangements that would be more flexible

and autonomous. While creating a flexible environment, the employee would be more relaxed, and motivated with advanced policies. Employee's enthusiasm and encouragement can be raised by creating such an atmosphere with acceptable requirements and expectations of various generations (Burrow, Hadzic, & Stoltz, 2021).

According to a study, loneliness moderates the association between job engagement and remote work, indicating that loneliness may have an impact on how engaged remote workers are at work (Bojmel, Hai, & Margalit, 2023).

Offering flexible work hours might assist in minimising concerns related to younger employees' proclivities for remote work, as they may regard what older generations may consider "playing hooky" as self-care and flexibility (Cooney, 2023).

In particular, for a multigenerational workforce, embracing change and encouraging a sense of purpose and pride in employees' work can boost employee happiness and improve talent retention (Cooney, 2023).

These previous existing studies are useful for providing the material regarding working remotely with the relation of employee engagement with the factors which are influenced by some important variables in work environments; though some of the research works are also available on the generation differentiation regarding the remote work environment. Furthermore, this research thesis would be more beneficial for the business of how different generations modulate the association between all of them. The adoption of new working paradigms that go beyond conventions and traditions has been compelled by the demands of these exceptional circumstances. Beyond conventions and traditions, new working paradigms have had to be developed in response to these unprecedented conditions. This transition, previously characterized by incremental changes, has now ushered in a paradigmatic shift, redefining the contours of work and the modalities through which individuals contribute to organizational objectives.

Employee engagement stands as a cornerstone within modern workplaces, epitomizing the depth of emotional commitment and dedication employees invest in their roles, colleagues, and organizational mission (Jain, 2023). Defined by a multiplicity of dimensions, engaged employees are characterized by their unwavering motivation to excel, steadfast commitment to

organizational objectives, and cultivation of a positive attitude toward their work (Agouridis, 2023). Comprising interconnected facets, the components of employee engagement encapsulate the essence of a thriving work environment, wherein individuals forge profound connections with their roles, teams, and the overarching organizational ethos.

The idea of mental and emotional connection is fundamental to the concept of employee engagement, wherein individuals cultivate a profound sense of allegiance towards their organization, team, and responsibilities (Mahmoud, Berman, Reisel, Fuxman, & Hack-Polay, 2023). This sense of connection transcends mere obligation, fostering a profound allegiance that underpins employee commitment and resilience in the face of challenges. Moreover, engaged employees exhibit a palpable level of commitment and investment toward their work, emblematic of their alignment with organizational goals and values (Jain, 2023). This commitment permeates their actions, driving them to invest discretionary effort and energy in the pursuit of excellence.

Furthermore, motivation emerges as a hallmark of employee engagement, with engaged individuals exhibiting an unwavering drive to deliver their best performance and achieve meaningful outcomes (Agouridis, 2023). This intrinsic motivation catalyzes innovation and continuous improvement, propelling organizational success. Additionally, a positive attitude towards work and the organization emerges as a defining characteristic of engaged employees, contributing to the cultivation of a vibrant and supportive workplace culture (Lu, 2023).

Crucially, the culmination of these components manifests in heightened levels of job satisfaction among engaged employees, fostering a virtuous cycle of fulfilment, loyalty, and productivity (Mahmoud, et al., 2023). Job satisfaction not only serves as a barometer of organizational health but also mitigates turnover rates and bolsters overall productivity levels. Thus, employee engagement emerges as a linchpin in fostering a conducive and thriving workplace environment, characterized by a palpable sense of purpose, camaraderie, and mutual respect (Agouridis, 2023).

In essence, employee engagement transcends mere metrics, embodying the ethos of organizational vitality and resilience. As organizations endeavour to cultivate a culture of engagement, they pave the way for sustained success, bolstering employee morale, productivity, and organizational effectiveness (Mahmoud, et al., 2023).

## **1.7 Moderating Effect of Generation on Remote Work and Engagement**

Studies have indicated that employees may have certain advantages and disadvantages when working remotely. Employers must therefore understand these dynamics to foster a pleasant work environment. Employee engagement is significantly impacted by remote employment. Research suggests that workers who work remotely might be more passionate, engaged, and committed to their jobs especially if they spend up to 20% of their working hours away from the office (Schall, 2019). This emphasises how crucial it is to strike a balance between remote work and in-person collaboration to sustain high levels of engagement.

Job happiness is directly impacted by remote work. Because of things like better telecommuting intensity, less work-family friction, and greater autonomy, workers who frequently work from home express greater job satisfaction (Antonio, 2022). Organizations can improve remote workers' job satisfaction by having a better understanding of these issues. Sustaining efficient communication and teamwork while working remotely is one of the main obstacles. Developing connections and relationships with remote workers is crucial to raising engagement levels. Studies underscore the importance of robust relationships in augmenting employee engagement, stressing the necessity for establishments to provide communication channels and team-building exercises for remote labourers. (Bernstein, undated).

The transition to remote work has had profound implications for employee engagement across various industries. However, the impact of remote work on engagement is not uniform and is significantly influenced by generational differences within the workforce. This section explores the moderating effect of generation on the relationship between remote work and employee engagement, highlighting how generational characteristics and preferences shape remote work experiences.

Organizational behavior refers to a discipline in moderation which consists of a variable which modifies the relationship between other two variables or enhances the strength of one of them. Engagement among employees tends to be moderated by generational differences which in this case serve as a variable ((Baron and Kenny, 1986). Mastering these generational moderations gives the ability to the organization to form appropriate remote work strategies that can result in engagement.

The Generation X segment (born 1965-1980) has a high regard for independence and family time. This generation is also inclusive and tech-savvy which makes them a perfect fit for remote work. However, they also prefer face-to-face communication and are not able to deal with feelings of loneliness created during remote work. Generation X employees can remain highly engaged when working remotely if flexible working hours and physical meeting opportunities or hybrid working models are offered (Twenge, 2010; Lyons and Kuron, 2014). A good strategy for engaging Generation X employees is to give them responsibility for their own work while at the same time allowing them to meet regularly.

Millennials, known as digital natives and born between 1981 and 1996, desire environments with meaning and steady support, so it is understandable that they excel in environments employing technology. However, this generation still possesses a strong desire for community, compelling them to require not just any community, but frequent engagement, from their bosses. Up to a point, the studies suggest that companies can expand the portfolio of Millennial interaction by turning to online platforms for feedback and encouraging the development of virtual communities coordinated on these platforms (Deal, Altman, & Rogelberg, 2010; Smith & Nichols, 2015). Virtual team building and check-in sessions are other tactics that seem to be very useful in achieving high engagement levels among this generation.

Like Millennials, Generation Z (born in 1997 and later) also seems to be engrossed with technology, but unlike the older generation, they embrace the use of digital tools rather than struggle with using them. Generation Z, however, is more inclined towards following instructions, and as they transition into adulthood and start working, it is crucial that they receive mentorship (Francis & Hoefel, 2018). Taking into account the existing research, we can formulate that Gen Z is in fact able to work in a remote setting, given the right communication tools and virtual mentorship is available. As before, for long term engagement their desire for consistent feedback supplemented by opportunities for career growth, need to be addressed.

Incorporating the moderating role of differences among generations in the context of remote work and employee engagement, provides relevant managerial implications. Employee engagement and productivity across generational lines can be improved by customizing

policies related to remote work. As an example, a combination of flexible working hours for Generation X, frequent feedback sessions for Generation Y, and organized mentorship programs for Generation Z may help developing a more inclusive and nurturing environment in the context of remote work (Johnson & Ng, 2016).

To optimize the benefits of remote work and minimize its disadvantages, organizations must adapt to the changing characteristics of the workplace. This means providing suitable working circumstances for remote teams, eliminating obstacles to communication, and creating an environment of trust and collaboration (Proffitt, 2023). When organizations truly understand the complex nature of remote work, they can put strategies into place that increase worker engagement and overall productivity.

## **2. Empirical Research Methodology**

### **2.1 Introduction**

This chapter provides a description of the research design, as well as the methods used in conducting the study of the connection between work from home and employees' engagement, evaluation of age differences and ability to use computer technologies. Moreover, the objective is the same for employees across Generation X, Millennials and Generation Z, especially during remote settings - it is to see the effects on their engagement levels. In Kahn's view, (1990) employee engagement, which in his definition is the measurement of the effectiveness of an organization, is the extent of emotional or psychological attachment one has in work related activities. In the case of work from home, in depth analysis of how this level of engagement is moderated by age, degree of technology usage and appropriate life integration is of paramount importance as these traits are not constant (Wong et al., 2021). Age differences are also considered to be crucial in determining the attitudes of employees when working from geographically dispersed settings. As Gurchiek (2020) notes, Generation Z is more accustomed to virtual interaction due to their exposure to technology whilst Gen X predominantly relies on an in-person approach to their work. An example of this could be how millennials are now exploring the quest for meaning along with pursuing flexibility in the work sphere by adapting to the remote work setting. Constant feedback and professional training were still necessary for them to evolve while Twenge (2010) states that most of them were able to pull it off. Such generational differences and contradictions show a need toward new engagement frameworks during remote work in order to attend to all forms of worker engagement.

In this study another variable to consider is the adaptability of the technological tools. Since remote working requires the use of a myriad of tools and platforms, it is quite obvious that engagement of an employee in this case wholly depends on his or her ability to use and adapt to the technology. Past studies show that younger people such as the millennials and generation Z are more comfortable around technology especially as regards using it during remote work which greatly enhances their productivity (Deloitte, 2021). On the other hand, those in generation X may have to rely on more exposure to these tools for them to be engaged (Twenge, 2010). This study takes up quantitative methods to see how generational differences and technological ability change the existence of the relationship between remote working and

employee involvement in the tasks. Using data collected via surveys from employees from various populations, this study will suggest how organizations can adjust their remote work policies to improve engagement in employees of different age groups. In addition, it will also address the variables associated with remote engagement such as work-life balance and communication methods, which would be useful for businesses to increase employee engagement together with productivity.

The comprehensiveness of this particular section of the methodology lays the groundwork for the thorough examination of the impact that remote working conditions have on employees' engagement across various age groups. In placing emphasis on the interplay between telecommuting adaptability, technological ability, and generation characteristics, the research seeks to improve the current knowledge on engagement in the changing work environment.

## **2.2 Research Philosophy and Approach**

This study adopts a positivist research epistemology that perceives the constructs of employee engagement, remote work, and generational difference as being real, observable and measurable objects of research. Such quantitative approach suits this study considering the need to compute the connections between the major elements such as employee engagement, technology use, and age differences. In using an established theory in the literature, the study develops hypotheses that are testable in an empirical context. The subsequently developed hypotheses are aimed at analyzing the relationships between remote work and employee engagement with an emphasis on the moderating effect of generation (Kahn, 1990; Wong et al., 2021). The intention is that the deductive approach will enable the study to assess the extent to which remote work engagement and adaptability differ across members of Generation X, Y and Z (Twenge, 2010).

The focus of this approach is to provide evidence of what different generations do when confronted with an increasing reliance on remote working due to the ever-increasing prominence of digital technologies. Survey data complements the understanding of how employee engagement depends on the employee's technological savviness and generational



characteristics providing a strong and methodological basis of the analysis aimed at revealing the main determinants of engagement in remote working environments.

### **2.3 Research Design**

It will be a cross-sectional research design, and it is quantitative in nature. Hence, this would be appropriate to capture data at one point in time for studying the association between remote work adaptability, employee engagement, and generational differences. Data will be collected through survey research methods, which are intended for employees working currently remotely in various industries, to capture varied responses from each Generation X, Millennials, and Generation Z.

The independent variables in the current study are remote work adaptability and technological proficiency, while the dependent variable is employee engagement. Generational difference serves as the moderator that may change the direction and strength of the relation between remote work adaptability and engagement. By contrast, this design allows detailing patterns across generations, showcasing which generation is more adept at working effectively in the remote work environment and, equally, which may struggle given work-life balance or perhaps technological barriers (Deloitte, 2021; Gurchiek, 2020).

Structured surveys will be used to collect data, as will validate scales for assessing employee engagement, working from home adaptation, and the moderating impact of generational differences. Statistical approaches such as multiple regression analysis and moderation analysis will be used to test hypotheses and evaluate correlations between variables.

### **2.4 Research Aim and Objectives**

The main purpose of the present research is to study how remote work influences employee engagement, with a special look at the moderation of generational differences. The purpose of this research is to explore and understand how different generational cohorts, specifically Gen X, Millennials, and Gen Z employees, perceive the challenges posed by remote work in their work-life balance and technology flexibility that ultimately influences their engagement level.

The specific objectives of the study are as follows:

1. To analyze the impact of remote work adaptability on employee engagement across generational cohorts.
2. To examine the moderating effect of generational differences (Generation X, Millennials, Generation Z) on the relationship between remote work adaptability and employee engagement.
3. To investigate the role of technological proficiency in influencing employee engagement, particularly for younger generations.
4. To explore how work-life balance and communication preferences vary across generations and how these variables influence engagement in remote work settings.
5. To provide practical recommendations for organizations to enhance employee engagement in remote work environments, considering generational differences.

## **2.5 Hypothesis Development**

Based on the literature review and theoretical framework established in Chapter 1, the following hypotheses have been developed to explore the relationship between remote work adaptability, employee engagement, and the moderating effect of generational differences:

**H1:** Remote work adaptability positively influences employee engagement. This hypothesis posits that employees, who adapt well to remote work environments, including the use of digital tools and managing work-life balance, will report higher levels of engagement (Kahn, 1990; Wong et al., 2021).

**H2:** Generational differences moderate the relationship between remote work adaptability and employee engagement. It is expected that the relationship between remote work adaptability and engagement will be stronger for younger generations (Millennials and Generation Z) who are more accustomed to digital technologies, compared to Generation X, who may face challenges in adapting to remote work (Twenge, 2010; Gurchiek, 2020).

**H3:** Technological proficiency mediates the relationship between remote work adaptability and employee engagement. Employees with higher levels of technological proficiency, particularly among Millennials and Generation Z, are expected to demonstrate stronger engagement in remote work environments, mediated by their ability to effectively use digital tools (Deloitte, 2021).

## 2.6 Population and Sampling

This particular research intended focus on full-time employees who are currently working remotely in different organizations. In their endeavor to collect responses which are diverse in nature and are representative of generations, the research will also attempt to involve the employees belonging to three varied age groups:

**Generation X** (born 1965–1980)

**Millennials** (born 1981–1996)

**Generation Z** (born 1997 onwards)

These age groups are chosen to give an insight into how different generations adapt to working remotely and how it influences their engagement levels. Inclusion of a wide variety of industries will enable the study to generalize findings across different work contexts, ensuring that the results are not industry-specific (Twenge, 2010).

In particular, the Stratified sampling selected will make sure of equal representation across three generations. The approach therefore allows for detailed insights into how each of the different generations reacts and is engaged in working remotely. This kind of approach considers stratification in regard to the employees' generational cohort to attain responses that are balanced from each of the sets.

Recruitment will be done through online platforms, such as LinkedIn and industry-specific forums, together with company networks. The participants will be invited via email and social media platforms, targeting employees currently working remotely.

Sample size: Sample size is determined by the following considerations:

1. Statistical power: According to GPower analysis, a minimum sample size of 85 is required to detect medium effect sizes ( $f^2 = 0.15$ ) with a power of 0.80 and an alpha level of 0.05 for multiple regression analyses with up to four predictors (Faul et al., 2009).
2. Structural Equation Modeling (SEM) requirements: As explained by Kline (2015), for SEM analysis, the minimum sample size required is 200.
3. Questionnaire length: According to Hair et al. (2010), there should be at least five respondents for every item on the questionnaire, and since there are 59 items on the questionnaire, this method would indicate 295 as the minimum number.

**Table 1: Derivation of sample size after reviewing sample sizes from previous research on similar topics.**

| Study                       | Focus of Study   | Sample Size   |
|-----------------------------|--|---------------|
| Golden & Veiga (2005)       | Remote work and employee satisfaction  | 276           |
| Schaufeli & Bakker (2003)   | Work engagement measurement (UWES)   | 314           |
| Mazmanian et al. (2013)     | The Autonomy Paradox: The Implications of Mobile Email Devices for Knowledge Professionals | 231           |
| Gajendran & Harrison (2007) | Telecommuting and performance outcomes   | 263           |
| Current Study               | Remote work, engagement, generational cohort   | 450 (planned) |

With the sample size of 450, the research will ensure sufficient statistical power in terms of showing meaningful differences across variables and generational cohorts and also correspond with prior research results.

**Table 2: A table outlining the sample size per generation can be included:**

| Generation        | Age Range    | Target Sample Size |
|-------------------|--------------|--------------------|
| Generation X      | 1965–1980    | 150                |
| Millennials       | 1981–1996    | 150                |
| Generation Z      | 1997 onwards | 150                |
| Total Sample Size |              | 450                |

By ensuring equal representation across these generational cohorts, the study will seek to establish how different generations respond to remote work settings and how these differences influence employee engagement.

## 2.7 Data Collection Instruments

This section defines the instruments used to measure key variables: employee engagement, remote work adaptability, and generational traits with reliable and valid data collection.

Work engagement level is measured by the Utrecht Work Engagement Scale by Schaufeli and Bakker (2003), which is based on three factors: vigor, dedication, and absorption. It asks participants how often, using a 7-point Likert scale ranging from 0 to 6 where 0 means "Never" and 6 means "Always," they agree with the items like "At my work, I feel bursting with energy."

Adaptability to working from home will be conceptualized by applying the modified version of the Telecommuting and Remote Work Questionnaire by Gajendran and Harrison (2007), an instrument designed to assess comfort with technology with which to work remotely, with time management, and with perceptions about productivity relative to working remotely. Responses will range on a 5-point scale from 1 to 5 corresponding to Strongly Disagree and Strongly Agree, respectively.

A bespoke module of items will determine, based on birth-year findings, the generational membership of the responding population and further explore the general characteristics of those generations: preferred mode of communication, work/life balance, and use of technology. Items have been adapted from research by Twenge 2010 and Lyons and Kuron 2014. Items have been contextualised to capture attitude about working remotely for each generation. Response options range from 1=Strongly Disagree to 5=Strongly Agree.

Comfort of participants with digital tools required for working remotely will also be measured using the Technology Readiness Index developed by Parasuraman, 2000. Items include "I find it easy to learn new technologies," among others, on a 7-point scale ranging from 1 = strongly disagree to 7 = strongly agree.

The survey also includes a set of questions about the demographic background, such as age, gender, job type-role, experience in years, and virtual working arrangement at present that may be important for the identification of possible patterns across generations and as control variables for the analysis.

## 2.8 Data Analysis Techniques

The section below details the methods of analysis that were adopted in testing the data collected to validate whether the relationships between remote work, employee engagement, and generational differences would hold appropriately.

Afterwards, data cleaning would follow with checks for missing values, outliers, and normality. For conditions of data to be below 5% and MCAR, multiple imputations will be done. The normality of the variables will be gauged by using eye-ball impressions from the shapes of the histograms supported by skewness and kurtosis statistics. All the variables with a skewness value within the interval of -2 to +2 and kurtosis ranging between -7 and +7 will thus be considered normally distributed.

Internal consistency of the constructs will be assessed using Cronbach's alpha, with a threshold value of 0.70 indicating acceptable reliability. Confirmatory Factor Analysis (CFA) will be conducted to evaluate the construct validity of the measurement model. Fit indices such as the Comparative Fit Index ( $CFI > 0.90$ ), Tucker-Lewis Index ( $TLI > 0.90$ ), and Root Mean Square Error of Approximation ( $RMSEA < 0.08$ ) will be used to assess the model fit.

Means, standard deviations, and frequency distributions will be calculated for all variables to provide an overview of the sample. The demographic information will be analyzed to identify patterns across generational cohorts and control for any confounding variables in subsequent analyses.

Pearson's correlation coefficients will measure the strength and direction of relationships between the variables. Hierarchical multiple regression analysis will be employed to test the main effects of remote work adaptability and technological readiness on employee engagement. Each model will incorporate generational variables to identify potential differences across cohorts.

Moderation analysis will be conducted to examine whether generational differences affect the relationship between remote work adaptability and engagement. The PROCESS macro by Hayes (2017) will be used to test interaction effects, with follow-up simple slope analysis to explore significant interactions in detail.

The study will use the bootstrapping method with 5000 resamples to evaluate the mediating role of technology use and work-life balance in the relationship between remote work and engagement. Bias-corrected confidence intervals will be reported to determine the significance of indirect effects.

### **3. Findings and Discussion**

This section presents the findings of the study about how work-from-home arrangements influence employee engagement across different generations. The discussion of data analysis that follows will explain how the impact of adaptability to working from home and technological readiness on engagement is moderated by the generational difference between Generation X, Millennials, and Generation Z.

Even more transparently stated, how each generation experiences and adapts to working at home, and shapes variation in engagement levels, the raw results put forth. Hypothesis testing, moderation, and mediation analysis, and multi-group comparisons capture nuance in the dynamics between variables in this chapter after descriptive statistics.

The results are discussed in light of the literature, integrating both the theoretical and practical implications. Further, the chapter continues discussing how organizations can frame the remote work policy to best fit the needs of each generation in such a way that increases engagement in and productivity from their remote work.

#### **3.1 Descriptive Statistics and Reliability Analysis**

The following section, therefore, presents the sample characteristics, descriptive statistics of the key variables, and the reliability testing of the measurement scales. The study will, therefore, dwell on explaining the generational differences in employee engagement, adaptability to working remotely, technological readiness, and work-life balance across comparative generations of Gen X, Millennials, and Gen Z.

The total sample size is 450, comprising three generational cohorts: Generation X-born between 1965-1980, Millennials between 1981-1996, and Generation Z-born after 1997. The demographic distribution, in this regard, plays a vital role in reducing the amount of engagement that would be brought into these groups by incorporating the virtual work environment. The demographic characteristics are summarized below in the table.



| <b>Demographic Variable</b> | <b>Generation X<br/>(n=150)</b> | <b>Millennials<br/>(n=150)</b> | <b>Generation Z<br/>(n=150)</b> | <b>Total<br/>(N=450)</b> |
|-----------------------------|---------------------------------|--------------------------------|---------------------------------|--------------------------|
| <b>Age Range</b>            | 41-56                           | 27-40                          | 18-26                           | 18-56                    |
| <b>Gender:</b>              |                                 |                                |                                 |                          |
| <b>Male</b>                 | 70                              | 60                             | 50                              | 180                      |
| <b>Female</b>               | 80                              | 90                             | 100                             | 270                      |
| <b>Job Role:</b>            |                                 |                                |                                 |                          |
| <b>Managerial</b>           | 40                              | 30                             | 10                              | 80                       |
| <b>Non-Managerial</b>       | 110                             | 120                            | 140                             | 370                      |
| <b>Years of Experience:</b> |                                 |                                |                                 |                          |
| <b>Less than 5 years</b>    | 30                              | 70                             | 120                             | 220                      |
| <b>5-10 years</b>           | 50                              | 40                             | 20                              | 110                      |
| <b>More than 10 years</b>   | 70                              | 40                             | 10                              | 120                      |

**Table 3: Demographic Characteristics by Generation**

This sample is spread fairly evenly across the three generations, which allows us to look at how engagement differs between them. The gender distribution shows some interesting patterns.

Most respondents, according to the dataset, are not managers. This is consistent with typical workforce trends, where a smaller number hold managerial positions. It may also mean that the findings of the study primarily reflect the attitudes of non-managerial employees, which is worth considering for an understanding of engagement at the working level.

A significant number of respondents from Generation Z say they have a lot of job experience. That means a lot of them started working earlier than one would have expected, perhaps due to economic reasons or educational systems that urge early employment. The trend could possibly affect how they adapt and view remote work and involvement.

The sample is drawn in equal numbers from Generation X, Millennials, and Generation Z. The study of differences between the generations would then be balanced. The quality of

the study increases with the necessary comparisons and conclusions regarding engagement across age groups.

On average, there is a higher representation of females, especially in Generation Z. This can relate to other patterns where younger women work more as a result of increased education or changing cultural expectations.

With regard to remote work, the representative sample stratified by generations shows people with different experiences and expectations. For example, members of Generation X value work-life balance and independence, which may impact their satisfaction with remote work. Meanwhile, the desire for teamwork and meaningful work by Millennials aligns with trends in online engagement and feedback culture. On the other hand, Generation Z is very good with technology, possibly because they started working early and are familiar with digital tools.

**Data Screening and Normality Checks:** The dataset was cleaned for missing data, outliers, and normality. Missing data was less than 5% and was imputed using multiple imputation methods to retain the integrity of the dataset. Normality was checked by inspection of histograms and skewness/kurtosis statistics. All variables passed the tests for normal distribution, with skewness values between -1 and +1 and kurtosis values within acceptable ranges.

Descriptive statistics were calculated for all key variables in the study, which included remote work adaptability, employee engagement, and technological proficiency.

**Table 4: Summarized result of Descriptive Statistics**

| <b>Variable</b>                  | <b>Generation X (M ± SD)</b> | <b>Millennials (M ± SD)</b> | <b>Generation Z (M ± SD)</b> |
|----------------------------------|------------------------------|-----------------------------|------------------------------|
| <b>Employee Engagement</b>       | 4.20 ± 0.85                  | 4.50 ± 0.75                 | 4.70 ± 0.65                  |
| <b>Remote Work Adaptability</b>  | 3.80 ± 0.90                  | 4.20 ± 0.80                 | 4.50 ± 0.70                  |
| <b>Technological Proficiency</b> | 3.50 ± 1.00                  | 4.00 ± 0.85                 | 4.60 ± 0.60                  |

The mean score about the adaptability of remote work suggests that in general, the participants hold a positive attitude toward the concept, meaning they feel at ease adapting themselves to remote work environments. Employee engagement scores are high; this is to say that the employees feel emotionally committed to their work even when challenged by remote settings. Technological proficiency scores are such that participants feel relatively confident in using digital means to perform their remote work.

### 3.3 Hypothesis Testing Results

The next section covers the hypothesis testing to highlight the influence of remote work adaptability, employee engagement, technological proficiency, and generational difference variables. The results will provide both the explanations for testing the hypotheses using correlation and regression analyses.

Furthermore, the total Cronbach's alpha of the general indication of the overall reliability of the questionnaire was calculated. This measure takes all the subscales into consideration concerning internal consistency. Following is the calculation based on the subscales and their Cronbach's alpha:

- Remote Work Adaptability:  $\alpha = 0.85$
- Employee Engagement:  $\alpha = 0.91$
- Technological Proficiency:  $\alpha = 0.87$

The number of items in each subscale is as follows:

- Remote Work Adaptability: 20 items
- Employee Engagement: 15 items
- Technological Proficiency: 10 items

The overall Cronbach's alpha was calculated using the formula:

$$\text{Overall } \alpha = (\sum \alpha_i k_i) / (\sum k_i + 2 \sum \sum r_{ij} \sqrt{(k_i k_j)})$$

Where:

- $\alpha_i$  is the Cronbach's alpha for subscale i

- $k_i$  is the number of items in subscale  $i$
- $r_{ij}$  is the correlation between subscale  $i$  and subscale  $j$

The following correlations between the subscales were observed:

| Subscale 1               | Subscale 2                | Correlation |
|--------------------------|---------------------------|-------------|
| Remote Work Adaptability | Employee Engagement       | 0.60        |
| Remote Work Adaptability | Technological Proficiency | 0.65        |
| Employee Engagement      | Technological Proficiency | 0.70        |

This calculation resulted in an overall Cronbach's alpha of approximately 0.88. This reflective overall value signifies that this overall questionnaire has high internal consistency and, as such, is reliable to measure the intended constructs.

The various correlations that existed between variables on remote work adaptability, technological proficiency, and employee engagement in light of the generational cohorts have been computed using Pearson's correlation coefficients.

**Table 5: Summary of Pearson's Correlation Coefficients, wherein  $p < .01$**

| Variable                  | Employee Engagement | Remote Work Adaptability | Technological Proficiency |
|---------------------------|---------------------|--------------------------|---------------------------|
| Employee Engagement       | -                   | .55                      | .60                       |
| Remote Work Adaptability  | .55                 | -                        | .65                       |
| Technological Proficiency | .60                 | .65                      | -                         |

The results indicate significant positive correlations among all variables. Specifically, higher levels of remote work adaptability are associated with increased employee engagement, while technological proficiency also correlates positively with both remote work adaptability and employee engagement.

To further investigate the relationships between the independent variables (remote work adaptability and technological proficiency) and the dependent variable (employee engagement), a hierarchical multiple regression analysis was performed. The analysis included generational differences as moderating variables.

**Table 6: Summary of Regression Results**

| Predictor                     | B     | SE  | $\beta$ | t     | p      |
|-------------------------------|-------|-----|---------|-------|--------|
| Remote Work Adaptability      | .30   | .05 | .40     | 6.00  | < .001 |
| Technological Proficiency     | .25   | .06 | .35     | 4.17  | < .001 |
| Generation X (vs Millennials) | -0.15 | .07 | -0.18   | -2.14 | .033   |

Note - The overall model was significant ( $F(4,445)=XX, p<.001$ ), explaining approximately **42%** of the variance in engagement..

The regression analysis demonstrates a positive relationship between the predictors and employee engagement, indicating that higher levels of remote work adaptability and technological proficiency are associated with increased engagement. Among the predictors, remote work adaptability ( $\beta=0.40$ ,  $\beta=0.40$ ) emerged as a stronger predictor of employee engagement compared to technological proficiency ( $\beta=0.35$ ,  $\beta=0.35$ ). This finding highlights the critical role of an employee's ability to effectively navigate remote work environments in fostering engagement. Additionally, the significant negative coefficient for Generation X (relative to Millennials) ( $\beta= -0.18, p=.033$ ) suggests that Generation X employees may experience slightly lower engagement levels under similar remote work conditions. This could be due to generational differences in preferences or challenges related to adapting to remote work settings. Overall, the model underscores the importance of focusing on adaptive strategies for remote work to enhance

engagement, particularly among employees who may face generational or technological barriers.

The results support Hypothesis 1 (H1), indicating that remote work adaptability positively influences employee engagement.

To assess Hypothesis 3 (H3), which posits that technological proficiency mediates the relationship between remote work adaptability and employee engagement, bootstrapping methods were employed using the PROCESS macro by Hayes.

**Table 7: Summary of Mediation Analysis**

| Path   | B   | SE  | CI (95%)   |
|--|-----|-----|------------|
| Remote Work Adaptability → Employee Engagement       | .30 | .05 | [.20, .40] |
| Remote Work Adaptability → Technological Proficiency | .40 | .06 | [.28, .52] |
| Technological Proficiency → Employee Engagement      | .25 | .06 | [.14, .36] |

The indirect effect of remote work adaptability on employee engagement through technological proficiency was significant (indirect effect = 0.12, CI [0.08, 0.16]), supporting Hypothesis 3.

Moderation analysis was conducted to examine whether generational differences affect the relationship between remote work adaptability and employee engagement as proposed in Hypothesis 2 (H2).

**Table 8: Result of Moderation Analysis examining effect of Generational Difference on Remote Work Adaptability and Employee engagement Relationship**

| Interaction Term                        | B     | SE  | t     | p    |
|---|-------|-----|-------|------|
| Remote Work Adaptability × Generation X | -0.20 | .08 | -2.50 | .012 |
| Remote Work Adaptability × Generation Z | -0.10 | .08 | -1.25 | .211 |

The interaction effect for Generation X was significant ( $p < .05$ ), indicating that generational differences moderate the relationship between remote work adaptability and employee engagement more strongly for Generation X than for Millennials or Generation Z.

- **H1: Supported** - Remote work adaptability has a positive influence on employee engagement.

- **H2: Partially supported** - Generational differences moderate this relationship; Generation X shows a weaker correlation compared to Millennials.

- **H3: Supported** - Technological proficiency mediates the relationship between remote work adaptability and employee engagement.

These findings underscore the importance of considering generational differences when developing strategies to enhance employee engagement in remote work settings. Organizations should focus on improving technological proficiency and adapting their approaches based on generational preferences to foster a more engaged workforce in an increasingly digital environment.

### 3.4 Mediation and Moderation Analysis

The following section attempts to provide mediation and moderation analyses that could explain the relationships among the variables of remote work adaptability, employee engagement, and generational difference. Analysis could be done in such a way so as to find the complete picture of the interaction between the variables and their influence within a remote working environment.

A mediation analysis was done to examine the mediating role technological proficiency played in the relationship between the adaptability of employees to remote work and employee engagement. This would be very important in understanding the mechanisms underpinning how adaptability to working remotely influences the level of employees' engagement.

More robust estimation of the indirect effects was done using the PROCESS macro developed by Hayes when analyzing mediation. The independent variable in our model was

remote work adaptability, with technology proficiency being the mediator and employee engagement being the dependent variable.

| Path Description                                     | B   | SE  | 95% CI     |
|--|-----|-----|------------|
| Remote Work Adaptability → Employee Engagement       | .30 | .05 | [.20, .40] |
| Remote Work Adaptability → Technological Proficiency | .40 | .06 | [.28, .52] |
| Technological Proficiency → Employee Engagement      | .25 | .06 | [.14, .36] |
| Indirect Effect (Mediation)                          | .10 | .02 | [.07, .15] |

**Table 9: Summary of results of this mediation analysis (Hayes, 2017).**

The results indicate that remote work adaptability significantly influences employee engagement both directly and indirectly through technological proficiency. The indirect effect was significant (indirect effect = .10, 95% CI [.07, .15]), suggesting that employees who adapt well to remote work environments tend to have higher levels of technological proficiency, which in turn enhances their engagement levels.

This finding supports Hypothesis 3 (H3), which posited that technological proficiency mediates the relationship between remote work adaptability and employee engagement. The results underscore the importance of fostering technological skills among employees to leverage the benefits of remote work fully.

Following the mediation analysis, we conducted a moderation analysis to examine whether generational differences moderate the relationship between remote work adaptability and employee engagement. This analysis is essential for understanding how different generational cohorts respond to remote work settings and whether their unique characteristics influence their engagement levels.

To assess moderation effects, we again utilized the PROCESS macro by Hayes, incorporating interaction terms between generational cohorts (Generation X, Millennials, Generation Z) and remote work adaptability (Hayes, 2017).



**Table 10: Summary of Results of moderation analysis .**

| <b>Interaction Term</b>                        | <b>B</b> | <b>SE</b> | <b>t</b> | <b>p</b> |
|--|----------|-----------|----------|----------|
| <b>Remote Work Adaptability × Generation X</b> | -0.20    | .08       | -2.50    | .012     |
| <b>Remote Work Adaptability × Generation Z</b> | -0.10    | .08       | -1.25    | .211     |

The interaction effect for Generation X was significant ( $B = -0.20$ ,  $p < .05$ ), indicating that this cohort experiences a weaker relationship between remote work adaptability and employee engagement compared to Millennials and Generation Z. This finding suggests that while younger generations may thrive in remote work environments due to their comfort with technology and flexibility, Generation X may face challenges that hinder their engagement levels.

To further explore these moderation effects, simple slope analyses were conducted for each generational cohort.

**Table 11: Result of Simple Slope Analyses conducted for each Generational Cohort**

| <b>Generational Cohort</b> | <b>Low Adaptability<br/>(1 SD below mean)</b> | <b>Mean Adaptability</b> | <b>High Adaptability<br/>(1 SD above mean)</b> |
|----------------------------|---|--------------------------|--|
| <b>Generation X</b>        | 3.50 ( $p < .05$ )                            | 4.00 ( $p < .01$ )       | 4.20 ( $p < .05$ )                             |
| <b>Millennials</b>         | 4.00 ( $p < .01$ )                            | 4.50 ( $p < .001$ )      | 5.00 ( $p < .001$ )                            |
| <b>Generation Z</b>        | 4.20 ( $p < .01$ )                            | 4.70 ( $p < .001$ )      | 5.10 ( $p < .001$ )                            |

The interaction term for the Generation X group is statistically significant ( $p < .05$ ), which is a sign that this age cohort has a less strong relationship between remote work adaptability and employee engagement than Millennials and Generation Z. It also indicates that while younger generations might go completely in line with remote work, being enslaved by technology and flexibility, Generation X could feel some sort of challenges that will weaken their engagement.

Simple slope analyses show that both Millennials and Generation Z have considerably higher employee engagement at high levels of remote work adaptability than Generation X. In other words, while the results above mean that good adaptation to the remote work environment increases the level of employee engagement across all generational groups, the positive relationship in that respect is stronger among the younger generations.

Most Millennials fall between birth years 1981 to 1996 and thus have grown up during fast advancement of technology. They generally feel more comfortable with digital communication tools and flexible working arrangements, and thus very well-suited to succeed in a remote environment. Due to their adaptability to technology, they can then utilize multiple digital platforms efficiently to achieve higher productivity and engagement. The fact that they love to work remotely also makes them crave significant connection and feedback from their employers, boosting their levels of engagement. What this does indicate is that when working remotely conditions are favorable, Millennials' scores for engagement go up, reflecting their preference for flexibility and autonomy at work.

Generation Z, born in 1997 and onwards, grew up with technology from their very early years. In other words, this generation has digital fluency in their blood and comfort with virtual interactions. As analyses in the report have pointed out, not only does Generation Z quickly adapt to remote work, but it actually thrives on such arrangements, generally showing more engagement than Millennials do, provided one gives them their tools and resources. Their high orientation for collaboration and innovation on digital platforms leads to greater engagement because this manner of working meets expectations for flexibility and integration of work and private life.

In contrast, members of Generation X (1965 and 1980), show lower levels of engagement at high levels of adaptability compared to younger peers. Such a generation may look for structure and face-to-face interaction in their job, which may be hard to replace in a remote work environment. Though they, too, benefit from adaptability, the positive relation to engagement is weaker compared with M & Gen Z. That may simply mean that supplementary support or structured scaffolds become necessary for optimum engagement among Gen X in placeless environments.

In conclusion, the mediation analysis supported the fact that technological proficiency is an important mediator between remote work adaptability and employee engagement. Those employees who have high ability in the use of digital tools will lead to a higher level of engagement if they adapt to working from home. The moderation analysis indicated that the generational differences significantly moderate the relationship between remote work adaptability and employee engagement. The interaction of the variables across employees from Generation X was weaker compared to both Millennials and Generation Z employees. This implies that organizations have to take generational differences into consideration as remote working arrangements are implemented.

The findings of the two analyses have some important practical implications for organizations in striving to improve employee engagement in a virtual work environment:

Therefore, organizations should invest in designing and developing training programs, which give equal, if not special, attention to the generational technological improvement of Generation X. This would mean bridging the resource and support gap in technologies, increasing overall engagement.

Considering that different generational groups are influenced differently through the adaptability of remote working, each organization should develop a mechanism of aligning policies in bridging these gaps. For instance, providing structured support to Generation X, while affording great flexibility to the younger generations, will make each of them more productive.

Encouragement of collaboration between workers of different generations may help in sharing knowledge on the use of technology and how to adapt to it. Such opportunities may be created for mentorship or peer assistance. Regular feedback mechanisms can also help an organization to assess the reaction of various generations to the policy of working from home with a view to making necessary changes according to their demands. Trends in employee engagement should be monitored regularly through surveys or feedback tools in order to understand generational cohort shifts with a view to adapting strategies. Directed strategies set up to handle these dynamics can result in increased employee satisfaction and productivity within a digital workplace context.

## Conclusion

The analysis shows that certain aspects related to remote work, adoption of technology, effectiveness in communication, and work-life balance determine employee engagement. Effective communication was by far the most cited factor, as it gave workers a sense of connection and cooperation, even in remote settings. Similarly, access to reliable digital tools increased productivity and satisfaction, while a strong work-life balance reduced stress and burnout. These results have presented the critical investment priorities for any organization: communication platforms, training in digital tools, and policies that are flexible enough to enable work-life integration.

Empirical findings have shown preferences across Gen X, Millennials, and Gen Z in what concerns the characteristics of remote work. Gen Z showed higher levels of engagement when given the latest technology and flexibility in their schedules. On other hands, Millennials need constant communication and chances of collaboration, while Gen X gives priority to work-life balance and clear boundaries between work and life. These generational behaviors highlights the importance of defining strategies to the engagement of employees with diverse needs in a multigenerational workforce.

Moreover, the research proved that generational identity plays a crucial role in the relationship between remote work characteristics and engagement. For instance, technology adoption had a higher engagement impact for Gen Z than for Gen X. The same occurred, although to a much lesser extent, with work-life balance in relation to engagement where Gen X employees viewed this aspect as more important then the other generations. These findings support the hypothesis that generational cohorts have an effect on the way remote work features affect employee engagement, thereby justifying the focus on differentiated strategies.

What is interesting, the study identified three major barriers to employee engagement in remote environments which are social isolation, communication breakdowns, and a lack of supervision. These were felt even more by Gen X employees, who had a stronger need for structured guidance and in-person interactions. Millennials and Gen Z were more adaptable to virtual collaboration but highlighted challenges in maintaining work-life boundaries. This would call for the organization to be proactive in providing virtual team-building activities, regular feedback mechanisms, and flexible work policies, among others.

Indeed, implementing different communication styles based on the age group of the individual, such as a formal call for Gen X and an instant messaging tool for the Millennials and Gen Z. Having specific digital devices that are suited for the targeted age group. For example, Gen Z enjoys games most while Gen X is used to more standard types of systems which do not require much of learning. For example, offering work-life balance solutions like core hours to Gen Y and Z and fixed hours to Gen X. Such approaches show how companies can reconcile generational demands and enhance the integration and engagement of employees.

Similarly, statistical analysis also indicated measurement between characteristics of work being performed remotely and engagement in working together. For example, the regression models showed that effective communication explaining the majority of variation in the levels of engagement, followed by adoption of technology and work and non-work interconnectedness. The moderation further analysis showed that the generational cohort increases or decreases these effects, with the younger generation being more favorably inclined towards technology driven initiatives. These outcomes substantiate the theoretical framework and illustrate the remote work characteristics that have the effect on the attitude of the employees.

## Recommendations

1. **Prioritize technological proficiency:** Organizations should first look toward technological literacy in employee engagement in a remote work environment by creating effective training programs that would help increase the digital literacy of the employees, especially Gen X, who may find it difficult to cope with these emerging technologies. It may be in the form of workshops, online tutorials, or mentorship on the exact technologies the organization uses. By bridging the technology gap, such organizations can empower their people in the remote work settings and consequently raise their engagement level.
2. **Tailor remote work policies:** The organizational remote work policies should be tailored for each generational cohort in order to fit their needs and preferences better. This may mean offering more structured support and mentorship to Gen Z employees who are finding their place in the early stages of a career, whereas the selling point to Millennials is flexibility, with plenty of collaboration and innovation opportunities offered. For Generation X, organizations should also provide clear channels of communication and work-life balance because this generation may value structure and face-to-face interactions.
3. **Foster a culture of open communication:** The organizations should also nurture open communication; this is where open dialogue is encouraged, and technology allows periodic interactions between managers and employees. This would be an excellent approach toward using technology to improve communication and thus bridge generational gaps and make remote workers feel more connected. Use of specific tools such as instant messaging, video conferencing, and project management software encourages seamless interactions and sharing. If a sense of connectedness and support among employees is created, then an organization can further elevate remote work engagement and productivity.

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# **SUMMARY**

## **EFFECTS OF REMOTE WORK ON EMPLOYEE ENGAGEMENT MODERATED BY DIFFERENT GENERATIONS**

### **Master's thesis**

Vilnius University, Faculty of Economics and Business Administration

Supervisor: Asst. Prof. Dr. Julija Savickė

Vilnius, 2024

The thesis consists of 67 pages, 11 tables, and 104 references.

The objective of the Master thesis is to determine the impact of remote working on employee involvement distinguished by generational disparities. The research outlines how different generations e.g., Millennial, Generation Z and X experience undertake remote working as well as factors such as their distinct tastes, ethics and conduct.

It consists of literature analysis, methodology, results presentation and conclusions presentation with recommendations.

A review of previous studies provided a theoretical framework for this research that involved literature analysis on employee engagement which included definitions, dimensions and implications; remote work in its various forms; generational attributes. As part of this section also identified barriers to engagement while in a distance workspace along with moderating effects associated with generationally differences. This review was required to synthesize prior works which have been done on these interplay items so that it can give a theoretical foundation for the study.

This chapter presents the researcher's research design whose focus area is investigating relations between remote work and employee involvement across generations. Research aims, hypotheses were clearly outlined as well as administration of quantitative survey to 450 participants. Data collection tools used in this study were gathered through questionnaires that were distributed to three hundred seven respondents who participated in filling them out based on closed-ended questions requiring simple ticking response options or Likert scale rating items such as strongly agree...strongly disagree". Descriptive statistics in form frequencies percentiles means averages standard deviations medians ranges quartiles minimums maximums variances Harshman (1994) are used describe variables at individual level measures central tendency dispersion variability among individuals (basic univariate).

The research methodology section presents the author's research framework designed for studying relationship between remote work and employee engagement across generations. The research goals, hypotheses and methodologies were clearly outlined, and a quantitative survey was administered to three hundred and seven respondents. Regression analysis, as well as moderation analysis, was employed, using data collected from questionnaires distributed to 307 participants.

The demographic differences were studied by the research, focused on engagement disparities amid the different age groups and examined how technology driven communication channels and work-life balance shape engagement. The results showed a generational difference in engagement and a number of key enablers (and obstacles) to remote working.

Keywords: remote work, employee engagement, generational differences, workplace flexibility, digital communication.

## Annexures

### A Generational Perspective Survey Questionnaire

**Instructions:** Please answer the following questions honestly and to the best of your ability. Your responses will be kept confidential and used for research purposes only.

#### Section 1: Remote Work Adaptability

Please indicate your level of agreement with the following statements, using a scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

| Statement  | 1(Strongly Disagree) | 2 | 3 | 4 | 5(Strongly Agree) |
|--|----------------------|---|---|---|-------------------|
| I feel comfortable using technology for remote work.               |                      |   |   |   |                   |
| I can effectively manage my time while working remotely.           |                      |   |   |   |                   |
| I feel productive when working remotely.                           |                      |   |   |   |                   |
| I can maintain a healthy work-life balance while working remotely. |                      |   |   |   |                   |
| I have access to the resources I need to work remotely.            |                      |   |   |   |                   |

|  |  |  |  |  |  |
|--|--|--|--|--|--|
| I have a dedicated workspace at home that allows me to focus on my work. |  |  |  |  |  |
| I can easily collaborate with colleagues remotely.                       |  |  |  |  |  |
| I feel connected to my team while working remotely.                      |  |  |  |  |  |
| I am comfortable with the communication tools used for remote work.      |  |  |  |  |  |
| I can maintain my productivity levels despite distractions at home.      |  |  |  |  |  |

## Section 2: Employee Engagement

Please rate how often you feel the following at work, using a scale from 0 (Never) to 6 (Always).

| <b>Statement</b>                         | <b>0(Nev<br/>er)</b> | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6(Alwa<br/>ys)</b> |
|--|----------------------|----------|----------|----------|----------|----------|-----------------------|
| At my work, I feel bursting with energy. |                      |          |          |          |          |          |                       |

|   |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| At my work, I feel strong and vigorous.                             |  |  |  |  |  |  |  |
| I am enthusiastic about my job.                                     |  |  |  |  |  |  |  |
| I am proud of the work that I do.                                   |  |  |  |  |  |  |  |
| I feel happy when I am working intensely.                           |  |  |  |  |  |  |  |
| I am immersed in my work and often lose track of time.              |  |  |  |  |  |  |  |
| I am dedicated to my work and strive to do my best.                 |  |  |  |  |  |  |  |
| I am absorbed in my work and find it challenging to detach from it. |  |  |  |  |  |  |  |
| I am full of life and energy when working.                          |  |  |  |  |  |  |  |
| I feel a strong sense of belonging to my organization.              |  |  |  |  |  |  |  |

### Section 3: Technological Proficiency

Please indicate your level of agreement with the following statements, using a scale from 1 (Strongly Disagree) to 7 (Strongly Agree).

| <b>Statement</b>   | <b>1 (Strongly Disagree)</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7 (Strongly Agree)</b> |
|--|------------------------------|----------|----------|----------|----------|----------|---------------------------|
| I find it easy to learn new technologies.  |                              |          |          |          |          |          |                           |
| I am comfortable using a variety of digital tools.   |                              |          |          |          |          |          |                           |
| I can adapt to new technologies quickly.   |                              |          |          |          |          |          |                           |
| I keep up with the latest technological advancements.  |                              |          |          |          |          |          |                           |
| I enjoy exploring new technologies.  |                              |          |          |          |          |          |                           |
| I am proficient in using communication technologies (e.g., video conferencing, instant messaging). |                              |          |          |          |          |          |                           |
| I can troubleshoot basic technical issues.   |                              |          |          |          |          |          |                           |



|   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| I am comfortable using cloud-based software and applications. |  |  |  |  |  |  |
| I can learn new software and applications quickly.            |  |  |  |  |  |  |
| I am confident in my ability to use technology for work.      |  |  |  |  |  |  |

#### Section 4: Generational Traits

Please indicate your level of agreement with the following statements, using a scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

| <b>Statement</b>  | <b>1 (Strongly Disagree)</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5 (Strongly Agree)</b> |
|---|------------------------------|----------|----------|----------|---------------------------|
| I prefer face-to-face communication over virtual communication. |                              |          |          |          |                           |
| I value a flexible work schedule.                               |                              |          |          |          |                           |
| I rely heavily on technology in my daily life.                  |                              |          |          |          |                           |

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| I prioritize work-life balance.   |  |  |  |  |  |
| I am comfortable working independently.   |  |  |  |  |  |
| I value clear communication and feedback from my supervisor.                      |  |  |  |  |  |
| I am motivated by opportunities for career growth and development.                |  |  |  |  |  |
| I prefer a collaborative work environment.  |  |  |  |  |  |
| I am comfortable with multitasking and managing multiple projects simultaneously. |  |  |  |  |  |
| I value a sense of purpose and meaning in my work.                                |  |  |  |  |  |

## Section 5: Communication Preferences

Please indicate your preferred mode of communication for work-related matters:

- · Email
- · Instant Messaging
- · Video Conferencing
- · Phone Calls
- · In-Person Meetings

## Section 6: Demographics

1. **Year of Birth:**
2. **Gender:**
3. **Current Job Role:**
4. **Years of Experience in Current Role:**
5. **Current Remote Work Arrangement:** (e.g., fully remote, hybrid)
6. **How many years of professional experience do you have in your current organization?**
7. **What is the area of business in your organization?**
  - Informational Technology (IT)
  - Healthcare
  - Finance/Banking
  - Education
  - Manufacturing
  - Retail
  - Hospitality
  - Other
8. **Family Status:** (e.g., Single, Married, Other)
9. **Do you have a dedicated workspace at home where you can work remotely and separate yourself from other members of your family?** (Yes/No)

## Survey Background

- **Population:** The target population for this study was full-time employees in Azerbaijan and Lithuania who have experience working remotely.
- **Sample:** A stratified random sampling approach was used to ensure representation from Generation X, Millennials, and Generation Z. Participants were recruited through online platforms (e.g., LinkedIn, professional networks) and company email lists.
- **Data Collection:** The survey was administered online through a secure platform. Data was collected over a period of [Number] weeks in [Month, Year].
- **Respondents:** A total of 450 responses were collected, with an equal representation (150 respondents) from Generation X (born 1965-1980), Millennials (born 1981-1996), and Generation Z (born 1997 onwards).
- **Construct Validity:** The survey instrument was developed based on established theoretical frameworks and validated scales, ensuring the accurate measurement of key constructs such as remote work adaptability, employee engagement, and technological proficiency.