

**T.C.
ISTANBUL GEDİK UNIVERSITY
INSTITUTE OF GRADUATE STUDIES**



**A STUDY OF THE IMPACT OF REMOTE WORKING ON
EMPLOYEES' MOTIVATION AND ENGAGEMENT**

MASTER'S THESIS

YUN MI MI OO YUN MI MI OO

Business Management Department

Business Administration Master in English Program

**NOVEMBER 2025
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Thesis Advisor: Assist. Prof. Dr. Ahmet ERKASAP

Istanbul 2025



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I, YUN MI MI OO, a candidate for the degree of master thesis at Istanbul Gedik university, hereby declare that this thesis, entitled "A Study of the Impact of Remote Working on Employees' Motivation and Engagement" is the result of my original research work, unless otherwise indicated. All sources of information used, whether quoted directly or paraphrased, have been appropriately cited and referenced. (24.11.2025)

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PREFACE

In recent years, the world of workplaces has transformed very quickly. Remote working, what was once considered an alternative form of working style, has now become a new norm of modern organizational life. As someone who has observed and personally experienced the shifts brought by digitalization, flexibility, and changing work cultures, I felt compelled to understand this phenomenon more deeply.

This study grew out of a genuine curiosity and a desire to explore how remote working influences two crucial elements of organizational success: employees' motivation and engagement. With the rise of hybrid and fully remote work arrangements, employees across different industries have had to adapt to new routines, new expectations, and new ways of connecting with their jobs. These changes, while full of opportunity, also bring challenges that require thoughtful examination.

Throughout this research journey, I aimed not only to analyze theoretical frameworks, but also to capture the lived experiences of remote employees. The insights gathered from individuals across various regions provided a meaningful foundation for understanding the realities of remote work — its promises, its limitations, and its impact on the human side of organizations.

Conducting this study has been both academically enriching and personally significant. Working on this thesis while managing my own responsibilities has helped me appreciate the complexities of motivation and engagement even more. It is my hope that the findings of this study will contribute to existing knowledge, support future research, and offer practical guidance for managers, HR professionals, and organizations striving to create healthier, more supportive remote working environments.

I extend my sincere gratitude to everyone who supported me throughout this process — my university, my professors, my colleagues, and the individuals who participated in the survey. Their contributions have made this work possible.

I wish you an insightful and enjoyable reading experience.

November 2025

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ABBREVIATIONS

ANOVA	: Analysis of Variance
COVID-19	: Coronavirus Disease 2019
EWL	: E-Work Life Scale
ICT	: Information and Communication Technology
JDR	: Job Demands–Resources Model
JES	: Job Engagement Scale
MWMS	: Multidimensional Work Motivation Scale
N	: Sample Size
OECD	: Organization for Economic Co-operation and Development
p	: Significance Level
R²	: Coefficient of Determination
SD	: Standard Deviation
SDT	: Self-Determination Theory
SET	: Social Exchange Theory
SPSS	: Statistical Package for the Social Sciences
β	: Beta Coefficient

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A STUDY OF THE IMPACT OF REMOTE WORKING ON EMPLOYEES' MOTIVATION AND ENGAGEMENT

ABSTRACT

The changes of working styles from traditional office working to remote working, which was accelerated during the COVID-19 pandemic, has brought important questions about how such working arrangements affect employees' motivation and engagement. Employees' Motivation and Engagement are two important factors for the success of organization. Based on Self-Determination Theory, the Job Demands–Resources Model, and Social Exchange Theory, this study explored how remote working influences employees' motivation and engagement, as well as the interrelation between these two variables.

In order to investigate these relations, survey data were gathered from 344 employees who were working remotely (both hybrid and full remote) through a cross-sectional online survey questionnaire. The study applied three established scales: the E-Work Life Scale, the Multidimensional Work Motivation Scale, and the Job Engagement Scale. Descriptive analysis was used to express participant characteristics, and further tests confirmed the reliability and validity of the instruments (Cronbach's $\alpha \geq 0.925$; KMO ≥ 0.980). The correlation results showed strong, positive relationships between remote-work perceptions, motivation, and engagement. Regression analysis indicated that supportive remote working environments accounted for about 83% of the variation in both motivation and engagement, while motivation itself explained approximately 88% of the variance in engagement ($p < 0.001$).

In conclusion, the findings suggest that when employees are supported with the right tools, trust, and flexibility, remote work can significantly improve both their motivation and engagement. The study not only provides practical insights for organizations for developing remote-work policies but also strengthens the theoretical understanding of employees' motivation and engagement in virtual working arrangements.

Keywords: *Remote work, Employee motivation, Job engagement, Self-determination theory, Job demands–resources model, Telework, Virtual workforce*

UZAKTAN ÇALIŞMANIN ÇALIŞANLARIN MOTİVASYONU VE KATILIMI ÜZERİNDEKİ ETKİSİNE İLİŞKİN BİR ARAŞTIRMA

ÖZET

COVID-19 pandemisi sırasında hız kazanan geleneksel ofis çalışma tarzından uzaktan çalışmaya geçiş, bu tür çalışma düzenlemelerinin çalışanların motivasyonunu ve bağlılığını nasıl etkilediği konusunda önemli soruları gündeme getirmiştir. Çalışanların motivasyonu ve bağlılığı, bir organizasyonun başarısı için iki önemli faktördür. Öz Belirleme Teorisi, İş Talepleri-Kaynaklar Modeli ve Sosyal Değişim Teorisi'ne dayanan bu çalışma, uzaktan çalışmanın çalışanların motivasyonunu ve bağlılığını nasıl etkilediğini ve bu iki değişken arasındaki ilişkiyi incelemiştir.

Bu ilişkileri araştırmak için, kesitsel bir çevrimiçi anket aracılığıyla uzaktan çalışan (hem hibrit hem de tam uzaktan) 344 çalışandan anket verileri toplanmıştır. Çalışmada üç yerleşik ölçek uygulanmıştır: E-İş Yaşamı Ölçeği, Çok Boyutlu İş Motivasyonu Ölçeği ve İş Bağlılığı Ölçeği. Katılımcı özelliklerini ifade etmek için betimsel analiz kullanılmış ve daha ileri testler, araçların güvenilirliğini ve geçerliliğini doğrulamıştır (Cronbach $\alpha \geq 0,925$; KMO $\geq 0,980$). Korelasyon sonuçları, uzaktan çalışma algıları, motivasyon ve katılım arasında güçlü ve pozitif ilişkiler olduğunu göstermiştir. Regresyon analizi, destekleyici uzaktan çalışma ortamlarının hem motivasyon hem de katılımdaki değişimin yaklaşık %83'ünü açıkladığını, motivasyonun kendisinin ise katılımdaki değişimin yaklaşık %88'ini açıkladığını göstermiştir ($p < 0,001$).

Sonuç olarak, bulgular, çalışanlar doğru araçlar, güven ve esneklikle desteklendiğinde, uzaktan çalışmanın hem motivasyonlarını hem de katılımlarını önemli ölçüde artırabileceğini göstermektedir. Çalışma, kuruluşlara uzaktan çalışma politikaları geliştirmeleri için pratik bilgiler sağlamakla kalmamakta, aynı zamanda çalışanların sanal çalışma düzenlemelerindeki motivasyon ve katılımlarına ilişkin teorik anlayışı da güçlendirmektedir.

Anahtar Kelimeler: *Uzaktan çalışma, Çalışan motivasyonu, İşe katılım, Öz-belirleme teorisi, İş talepleri-kaynaklar modeli, Tele-çalışma, Sanal işgücü*

1. INTRODUCTION

1.1 Background of the Study

Within recent years, remote working has grown rapidly, due to the advancements in technologies and digital collaboration tools (Messenger & Gschwind, 2016). Before the COVID-19 pandemic, remote working was mainly used by freelancers, consultants, and a few specialized industries. However, when the pandemic struck, organizations across the world had no choice but to shift almost overnight to remote operations, changing what was once an alternative practice into a mainstream model of work (Kniffin, et al., 2020).

In essence, remote working is a work practice that allows employees to perform their work responsibilities outside the traditional office, which is, often from home or any location with an internet connection. This work practice has brought both benefits and complications for employers and employees. On the positive side, remote work can enhance greater autonomy and flexibility, reduce commuting time, and improve work–life balance, which may then lead to improve motivation (Gajendran & Harrison, 2007) (Wang, et al., 2021). On the other side, this working arrangement can create challenges such as lack of direct supervision, social isolation, and communication problems, which could affect the levels of employees' engagement and motivation negatively (Mann & Holdsworth, 2003).

Employee motivation and engagement are important elements for the success of organization because they directly influence productivity, satisfaction, and overall performance (Deci & Ryan, 2000). Motivation is defined as the internal force that drives individuals to perform certain job activities or to achieve certain job objectives, while engagement is referred to the degree of enthusiasm, deep passion and involvement towards their jobs (Schaufeli, et al., 2002). It is important for organizations to understand how these dimensions are influenced by remote working in order to maintain productivity and performance in this transforming work environment.

Regarding this subject, previous studies have shown different results. Some studies suggest that e-working improves autonomy and job satisfaction, which leads to higher motivation and engagement (Bloom, et al., 2013). Other studies highlight the challenges such as decreased teamwork, technostress, and disengagement due to not being able to interact face-to-face (Tavares, 2017). These controversies suggest an additional research is required on how remote work impacts employees' motivation and engagement across different organizational and cultural contexts.

This study aims to contribute to the existing researches by studying the relationship between remote work, employee motivation, and engagement. By using validated scales such as the Multidimensional Work Motivation Scale (Gagne, et al., 2015), Job Engagement Scale (Rich, et al., 2010), and E-Work Life Scale (Grant, et al., 2013), this research will provide empirical evidence on whether remote working has a positive or negative impact on motivation and engagement. The findings of this study will provide useful insights for corporate leaders, business managers, HR specialists, and policymakers to develop effective remote work policies that encourage a productive and engaged workforce.

1.2 Research Problem

The rapid shift towards remote working arrangements, especially after the Covid-19 pandemic, has reshaped how organizations operate and how employees experience their work. Although e-working has allowed flexibility, autonomy, and cost-efficiency, it has also resulted in a range of issues that may have a significant impact on key psychological and behavioral factors such as employee motivation and engagement (Mann & Holdsworth, 2003).

The overall organizational performance or success relies on employee motivation and engagement. Motivated employees tend to be more productive, committed, and innovative, while engaged employees are more probable to show a deeper emotional connection to their work and a better synchronization with organizational objectives (Deci & Ryan, 2000) (Kahn, 1990). With the widespreadness of remote working today, it is vital to recognize whether and how this new work structure strengthens or diminishes these two important dimensions of employee performance and satisfaction.

Although there are numerous studies on remote working topics, results and findings remain confusing. In some literatures, it is mentioned that employees' motivation and engagement are increased in remote working arrangement due to the presence of autonomy and a better work-life balance (Bloom, et al., 2013). However, in other studies, it is argued that remote working can undermine motivation and engagement as a result of social isolation, communication difficulties, and lack of supervision (Golden, et al., 2008). Additionally, the factors that influence motivation and engagement in remote working arrangement are not completely clear yet, particularly when analyzed through psychological and behavioral theories such as Self-Determination Theory (SDT), Job Demands-Resources (JDR), and Social Exchange Theory (SET) (Deci & Ryan, 1985) (Bakker & Demerouti, 2007) (Blau, 1964).

Most existing studies have focused on particular industries or geographical regions, which leaves important gaps in understanding how remote work operates across different organizational and cultural contexts. By taking this into consideration, there is still much to learn about how remote working affects employee motivation and engagement. As a result, further research is required that applies reliable measurement tools and established theoretical frameworks to explore these relationships more comprehensively.

Based on this, the primary research question of this study is:

How does remote work affect employees' motivation and engagement, and how are these two variables connected within e-working environments?

Additionally this study examines whether employees who are motivated in remote work show a higher level of engagement. This study also provides suggestions on how remote work policies and strategies that can enhance motivation and engagement can be developed.

1.3 Research Objectives

The main purpose of this study is to explore the impact of remote working on employees' motivation and engagement. As remote work becomes a highly common work practice in today's age, we need to understand how this work arrangement influences employees' psychological and behavioral well-being. The aim of this

study is to provide empirical evidence on whether remote work increases or reduces motivation and engagement, and how these two factors interact within remote work settings.

More specifically, the research objectives of this study are as follows:

1. To study the effect of remote working on employees' motivation using the Multidimensional Work Motivation Scale (MWMS), which measures different types of motivation that aligns with Self-Determination Theory (SDT).
2. To assess how remote working practices influence the engagement of employees by applying Job Engagement Scale for measuring emotional, cognitive and behavioral commitment towards work.
3. To observe the connection between motivation and engagement of employees in remote work environment, and understand whether motivation acts as an indicator for engagement.
4. To recommend practical suggestions for companies and HR professionals that can be useful in developing effective remote work policies which encourage motivation and engagement, so that it can lead to improve overall productivity and performance.

1.4 Research Hypotheses

The aim of this research is to observe the influence of remote working on employees' motivation and engagement as well as to study the relation between motivation and engagement. Using relevant theories such as Self-Determination Theory (SDT), Job Demands-Resources (JDR) Model, and Social Exchange Theory (SET), this research will assess whether employees are motivated and whether they are physically and emotionally engaged while working remotely.

Based on the theories, concepts and the review of literature, this study has developed the following three hypotheses:

- **H1:** There is a significant impact of remote working on employees' motivation.

This hypothesis is developed based on the key concepts of SDT, in which, autonomy and flexibility increases the intrinsic motivation of employees, whereas

the lack of relatedness may lead to the feelings of isolation, which in turn, negatively influences employees' motivation.

- **H2:** There is a significant impact of remote working on employees' engagement.

The JDR model explains that organizational support, such as providing sufficient resources and emotional support, can encourage the physical and emotional engagement of employees while the high demands of work such as increased workload can reduce employees' engagement towards work. This hypothesis is established to investigate these situations in remote working environment.

- **H3:** There is a significant relationship between employees' motivation and employees' engagement.

It is commonly said that motivation is the key driver of engagement. This hypothesis will be tested to understand whether higher motivation can lead to increased work engagement, particularly in remote work settings, where there is no supervision from managers.

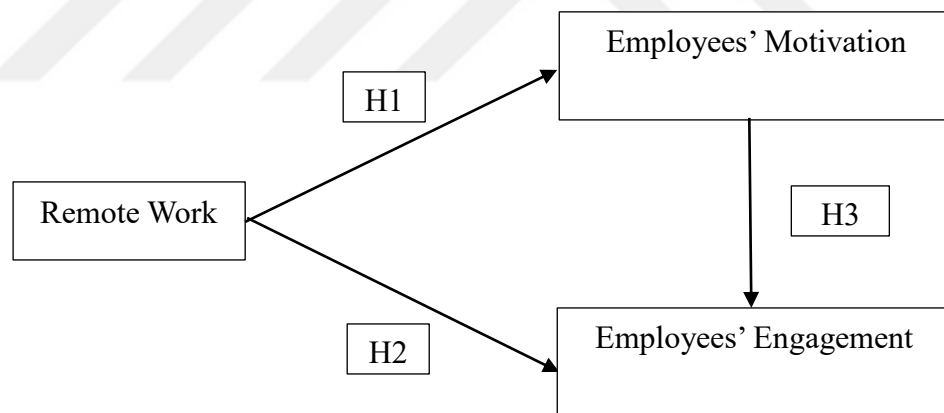


Figure 1.1: Hypothesis of the Study

In order to test these hypotheses, quantitative analysis will be applied in this research. By using Multidimensional Work Motivation Scale, Job Engagement Scale and E-Work Life Scale, data will be collected from remote employees (hybrid or fully remote).

1.5 Significance of the Study

The results and findings of this study can significantly contribute both academically and practically, by taking into consideration about the existing matters

of the modern workplace styles. As remote working becomes a new working norm, especially after the Covid-19 pandemic, it is important for organizations to understand how this working style influences on employees for managing them better to operate effectively in this working style. According to previous studies, remote working can provide different benefits such as cost-saving (in terms of time, money and energy) as well as flexibility and autonomy. However, there are also common challenges while working remotely such as lack of physical communication, social isolation, work-life conflict, technostress as well as reduced belongingness. The objective of this study is for assessing these controversies further, to be able to provide findings that can be used by stakeholders for the effectiveness of remote working practices.

Recently, the studies about remote working is increasing due to its popularity among workplaces. From an academic point of view, this study can support these increasing studies about remote work by studying its effect on key psychological factors of employees to be able to work properly: Motivation and Engagement For investigating these influences, developed and reliable theoretical frameworks such as Self-Determination Theory (SDT), the Job Demand-Resources Model (JDR) and Social Exchange Theory (SET) are employed in this research along with the validated measurement instruments such as Multidimensional Work Motivation Scale, Job Engagement Scale and E-Work Life Scale. As a result, this study can contribute academically by assessing whether the developed theories and scales are relevant in modern working trends.

Practically, the findings of this study can benefit managers, HR professionals and business leaders by providing them with useful information on how to design effective remote work policies that can encourage employees' motivation and engagement. These effective policies can lead to increase overall performance and productivity, reduce turnover and create a more satisfied and energetic workforce. In addition, this research can benefit not only for employers but also for employees themselves by helping them to understand better about their own drivers of motivation and key factors that can lead them to higher engagement level while working remotely.

Overall, this research contributes both in terms of academic and practical through the use of developed theoretical models and validated instruments along with real-world data and evidences from remote workers across different regions.

1.6 Scope and Limitations of the Study

Scope of the Study

The scope of this research is investigating the impact of e-working on employees' motivation and engagement through employees who are currently working remotely, either full-time or in a hybrid work, throughout different industries and regions. Collection of data is done by sharing an online survey questionnaires through social media platforms such as LinkedIn and Facebook groups. Multidimensional Work Motivation Scale, the Job Engagement Scale, and the E-Work Life Scale are used to develop questionnaires. The main purpose of this research is to provide suggestions for business leaders, HR professionals and managers on how to operate their jobs effectively in remote work contexts.

Limitations of the Study

Although the study intends to provide valuable evidence-based suggestions, a number of limitations should also be recognized. The limitations of this study are as mentioned below:

Sample Representation: The participants of online survey questionnaires are chosen through convenience sampling, mainly via online platforms. As a result, the sample may not fully represent all industries, job levels, or geographic regions.

Self-Reported Data: Since this study applies self-administered questionnaires, it may introduce biases such as social desirability bias, where there is a possibility that participants may respond in a way they perceive as favorable rather than representing their true feelings or experiences.

Cross-Sectional Approach: Cross-Sectional approach is used in this research. This means that the data are collected and analyzed from a population or sample at a specific point in time. Therefore, it cannot measure causal relationships (cause and effect), only establish correlations between remote working, motivation, and engagement.

Generalizability: The study is conducted in a specific context (employees who are reachable through online platforms) and cultural context. Therefore, the findings and results may not be universally applicable to all remote workers globally.

Independent Variables: There are other variables that are not considered in this study such as employees' personality traits, the culture of organization, leadership styles and Factors such as individual differences (e.g., personality traits), organizational culture, leadership styles, and external factors are not considered, which can also affect the levels of motivation and engagement of employees in remote working environments.



2. LITERATURE REVIEW

2.1 The Concept of Remote Working

Remote working, which can also be described as e-working, telecommuting or telework, can be specified as a work setting in which works or tasks are completed outside the traditional office setting, through the use of various technological tools (Grant, et al., 2013). While working remotely, it is possible to work from any locations outside offices, not necessarily one's home (Gajendran & Harrison, 2007). Remote work settings include full remote working, flexible scheduling, and numerous hybrid systems. Flexible working or hybrid work are also significant work arrangements under remote working in which individuals decide and schedule their job functions (Messenger & Gschwind, 2016). These working systems are often being affected by conditions such as job criteria, industry standards, and individual preferences (Bailey & Kurland, 2002).

The concept of remote working was first introduced for solving the issues of traffic congestion and environmental concerns, in the 1970s by Jack Nilles, a former NASA engineer (Nilles , 1998). This idea of remote working gained popularity in 1980s when personal computers were invented, then in 1990s when internet was accessed widely. In the early years of 2000s, remote working was recognized as an applicable work practice with few organizations such as IBM, Sun Microsystems, and Cisco, starting to adopt this practice (Allen, et al., 2015).

With the outbreak of Covid-19 pandemic in 2020, remote working has become a norm in workplaces, with significant changes brought to businesses, causing job functions to move from traditional workplace to remote work inevitably, for ensuring the health and safety of employees (Kniffin, et al., 2020). As a consequence of this rapid shift, both employers and employees have to adopt new work practices, develop digital skills and competencies and integrate advanced e-working tools and technologies into daily operations (Waizenegger, et al., 2020). Today, remote work has reshaped the existing trends in traditional work place

practices. Even in the post-pandemic era, remote working has continued to redefine traditional workplace norms, with many organizations maintaining flexible or hybrid work policies (Carillo, et al., 2021).

While e-working offers flexibility, autonomy and work-life balance to employees, it also imposes challenges in the form of engaging effectively with co-workers, reducing the feeling of belongingness, feeling of isolation, adopting new technologies and establishing a healthy work-life balance for some employees (Tavares, 2017) (Wang, et al., 2021).

2.2 Dimensions of Remote Working Experiences

The conditions of remote work has completely changed the traditional working styles, by providing opportunities such as flexible work schedules, autonomy in decision-making and digital collaboration. While remote working open ways to these opportunities, there are also new challenges for both employers and employees introduced by this working model. For better understanding these dimensions of remote working, factors such as job performance, organizational trust, work-life balance and employee well-being are identified in the literature as important indicators of remote working model (Wang, et al., 2021) (Carillo, et al., 2021). In this section, these dimensions will be discussed in detail:

2.2.1 Remote working and job performance

Job performance in the remote workplace is defined as the degree to which jobs are done efficiently and effectively by employees outside of the traditional office. In order to achieve a greater level of performance in remote working environments, factors such as proper access to technology and digital collaboration tools, digital skills and a quiet work-environment are considered as critical (Molino, et al., 2020) (Waizenegger, et al., 2020). Organizations play an important role in achieving high level of job performance in remote work settings because they need to provide required technology infrastructure and communication tools along with technical support and training programs for employees to be able to work productively (Charalampous, et al., 2018). It is mentioned in previous literatures that even though these technical infrastructure and support are provided, there can still be challenges that remote employees face. For instance, employees can often face such

communication barriers as technical disruptions, software malfunctions, unsecured internet connections and insufficient IT support. Additionally, some of the employees can have difficulties in adapting to e-working tools or they can face lack of self-supervision that is necessary while working with autonomy and flexibility (Vyas & Butakhieo, 2020). Moreover, the working environments outside of office have the possibility of disrupting situations such as difficulty in working at noisy environments, due to having kids at home, that can reduce overall job performance (Ipsen, et al., 2021).

2.2.2 Organizational trust and employee engagement

Trust and engagement are also factors that play crucial roles in remote work contexts because the remote working is done through managers managing from a distance with expectations of honesty from employees. Unlike traditional settings where supervisors can provide real-time oversight, remote working relies heavily on mutual trust between employees and management (Morgeson, et al., 2010). Building trust in remote settings involves transparent communication, clear expectations, and empowering employees through autonomy and accountability (Carillo, et al., 2021).

In order to achieve success in remote working, organizations need to develop trustworthy strategies and policies, along with relevant training and support, for guiding e-workers to work without distractions in their remote working environment (Contreras, et al., 2020). According to Mulki et al (2009), some management solutions to e-working include providing a higher independence to employees, setting efficient goals and needs, having the right levels of communication, showing trust to employees as well as fostering a sense of trust and belonging among employees by offering comprehensive support. These policies can be important for the success of organizations adopting remote working, however, organizations should consider individual preferences while establishing these policies (Gajendran & Harrison, 2007).

2.2.3 Work-life balance and psychological well-being

With increased emphasis on remote working, the term “Work-Life Balance” has gained popularity in management practices for retaining high performing employees. Work-Life Balance means the ability of an employee to allocate sufficient time to both work and personal commitments without affecting one another

(Greenhaus & Allen, 2011). Remote work allows employees to have more flexibility in managing their schedules, providing a healthier balance between work and personal life (Tavares, 2017) (Allen, et al., 2015). Regardless of these perks, there are negative influences of work-life balance which include but not limited to uncertainties in roles and duties, limited technical knowledge, and extended work hours due to the inability to separate personal and professional life (Felstead & Henseke, 2017).

It is mentioned in existing studies that all remote employees cannot achieve a healthy work-life balance. Since digital and communication tools are widely used in remote work settings, remote workers are able to access their jobs promptly through their phones, tablets or laptops. This easy accessibility is not always good and can sometimes blur the line between personal and professional life, which leads employees to work longer hours and there is a possible chance of increasing stress and burnout (Mazmanian, et al., 2013) (Wang, et al., 2021). Extended working hours can act as one of the primary reasons for problems related to emotional well-being. Additionally, home is mostly considered as a place to rest and recharge. As a result, when home is full with both work and home responsibilities, it can bring harm to psychological well-being and reduce the feeling of calmness and relaxation at home (Oakman, et al., 2020). E-working environments can also reduce a sense of belonging among employees. Hence, employees who work remotely are often struggling with social isolation and facing loneliness, which can lead to mental health issues and reduce the level of job performance (Mann & Holdsworth, 2003).

2.3 Employee Motivation in Remote Work Settings

Along with the popularity of remote working, it is also important for organizations to observe how they can maintain employees' motivation, job satisfaction and emotional commitment towards job. According to existing studies, remote employees can have such benefits as increased work-life balance and productivity (Tavares, 2017), while they can also face difficulties such as conflicting work-life boundaries and social isolation (Mazmanian, et al., 2013). In this study, three theories have been explained, which are Self-Determination Theory (SDT), Job Demands-Resources (JD-R) model and Social Exchange Theory (SET) for discussing about the motivational influences in remote work settings. This section

will discuss these three theories in details and the application of these theories in remote working environments.

2.3.1 Self-determination theory in remote work

Self-Determination Theory (SDT) (Deci & Ryan, 1985) explains comprehensively about intrinsic and extrinsic motivation in work environments. SDT mentions that intrinsic motivation can be satisfied with three primary psychological needs, which include autonomy (the feeling of self-supervision over one's actions), competence (the feeling of being competent and productive), and relatedness (the feeling of belonging). If all of these basic needs are satisfied, it is more likely for individuals to be intrinsically motivated, that can lead to higher level of engagement in work, continued effort and emotional well-being (Deci & Ryan, 2000). In workplaces, the work practices and behaviours which satisfy these three needs will promote self-motivated (autonomous) performances and job satisfaction (Gagne & Deci, 2005).

In remote work arrangements, these needs are affected in particular ways. Gajendran & Harrison, (2007) suggests that remote work settings often enhance autonomy, because employees generally have more flexibility in scheduling their tasks on how, when and where to perform them. As remote workers have to implement their tasks away from direct supervision, they have the opportunities to arrange and perform activities in ways which are relevant to them (Contreras, et al., 2020). Hence, the need for autonomy is satisfied in remote work by having flexible scheduling and location independence, which tends to increase employees' sense of ownership and empowerment, enhancing creativity and self-regulation (Kniffin, et al., 2020). In practical contexts, it is reported that most remote employees experience a high level of decision-making autonomy in scheduling and prioritizing work activities, which aligns with the idea of SDT's autonomous motivation (Barber, et al., 2019).

Remote work environments can also support the need for competence through employees requiring to develop contemporary digital skills and self-management strategies, which may boost their sense of efficacy (Deci & Ryan, 2000) (Gagne & Deci, 2005). A study suggests that remote workers can be more productive and organized (due to fewer in-office interruptions) (Bloom, et al., 2013). Additionally, as

suggested by Oakman, et al (2020), remote employees can save transportation time and energy, which allows them more time and energy for self-development as well as for dealing with challenging tasks. Nevertheless, it is important to note that the need for competence can be reduced if employees are not able to receive immediate feedback, access organizational support and achieve opportunities for self-development (Charalampous, et al., 2018). These risks can be mitigated in remote working if organizations frequently provide virtual training, performance check, self-development opportunities, required technological and digital tools along with technical support (Allen, et al., 2015) (Contreras, et al., 2020).

The need for relatedness is the most challenging needs to be satisfied in remote workplaces among the three needs of SDT. As stated by SDT, the relatedness is defined as the feeling of belonging and being supported at work (Deci & Ryan, 1985). It is highlighted in one study that there is a lack of interpersonal communication, a reduced feeling of team collaboration, a very limited social interaction in remote work arrangements (Charalampous, et al., 2018). This argument is agreed by Hodzic, et al, (2024) by explaining that employees will not communicate face-to-face and will not be physically present while working remotely, which can reduce the social bonds with colleagues and supervisors. As communication via technology is very formal and social cues are missing, it is challenging to create rapport and develop trust (Marshall, et al., 2007). For instance, the findings of Golden, et al, (2008) showed that a lot of employees who are working remotely are experiencing the feeling of social isolation and disconnection from work because there is no social conversations as well as there is no mental health support systems. As mentioned in most studies, the feelings of social isolation and withdrawal can lead to exhaustion and disengagement emotionally. From SDT point of view, the need of relatedness is not met, which in turn reduces intrinsic motivation (Deci & Ryan, 2000).

SDT stated that these negative effects of remote working experiences should be reduced by doing required managerial practices. For instance, organizations can hold virtual socializing activities, training programs and collaboration platforms and tools in order to increase social bonds among remote employees (Bailey & Kurland, 2002) (Grant, et al., 2013). If autonomy and competence needs are met but relatedness is low, workers may still be motivated (Ryan & Deci, 2017). In

conclusion, SDT suggests that for organizations to succeed in maintaining high level of motivation among remote employees, they must establish a work environment that supports autonomy, competence and relatedness. However, organizations must be mindful of building relatedness through conscious social supports (Van Den Broeck, et al., 2016). When the three needs are satisfied, remote employees tend to be more autonomously motivated and engaged (Deci & Ryan, 2000).

2.3.2 Job demands-resources model in remote work

The Job Demands-Resources (JD-R) Model (Bakker & Demerouti, 2007; Demerouti, et al., 2001) serves as a theoretical framework for examining how job features influence employee stress and motivation. The theory separates every jobs into two elements, Demands and Resources. Demands are elements that require continuous physical or mental effort which can drain one's energy; while resources are elements that support to achieve work goals, reduce work demands and foster personal development (Bakker & Demerouti, 2016). The model also introduces two main psychological processes: a health-impairment process, whereby excessive job demands lead to burnout and health problems, and a motivational process, in which job resources increase engagement, commitment, and improved performance (Schaufeli & Taris, 2013) (Bakker & Demerouti, 2007).

In virtual work settings, the JD-R model highlights new demands and resources. The demands in remote work include technical stress, blurred personal boundaries, information overload, role uncertainties and longer working hours (Molino, et al., 2020). In addition, remote working can cause the feelings of social isolation and the pressure of self-supervision, which add on the mental stress of employees working remotely (Vaziri, et al., 2020). According to existing studies, the lack of social interactions and communication networks along with inadequate emotional support can create the demands of remote jobs, which will reduce employees' motivation, if it is not handled properly (Carillo, et al., 2021). Moreover, information overload is one of the most common demands of remote work. Employees, when working remotely, receive continuous work-related notifications and data through emails and sms, that require prompt attention and response. This can cause employees to feel worn out and mental stress in the long-term (Suh & Lee, 2017). Another common challenge is longer working hours. While working virtually outside of office, there are no clear boundaries between professional and personal

lives. Employees probably work longer hours without noticing it because of easy access to job through digital tools such as phones and tablets, that lead employees to exhaustion and stress (Ipsen, et al., 2021). When there is no sufficient resources and support to reduce these remote job demands, these can influence employees' motivation and emotional health negatively (Wang, et al., 2021).

In contrast, remote job resources include technological support, managerial trust, autonomy, effective digital communication and emotional support from supervisors and coworkers (Galanti, et al., 2021). In align with Self-Determination Theory, autonomy is considered as a key resource in remote work environment, where employees have the freedom to set their own work's schedule, leading to increase employees' motivation and desire to work (Deci & Ryan, 2008) (Ipsen, et al., 2021). Additionally, Carillo, et al (2021) suggests that structural support is also recognized as a critical resource in telework. Structural support means the technological and organizational support which includes the provision of reliable technology (e.g., high-speed internet, secure VPNs, and digital collaboration tools) and organizational policies (such as flexible working hours and training opportunities). When these practices are implemented, employees can be more productive and will be able to maintain a healthy work-life balance (Molino, et al., 2020). Empirical studies have found that providing remote employees with relevant technology, managerial support and flexibility will significantly reduce stress and feelings of isolation (Contreras, et al., 2020) (Waizenegger, et al., 2020).

Since remote work becomes a new norm in today's workplaces, it is essential to have knowledge on how to balance demands and resources so that organizations will be able to handle and maintain employees' motivation and job effectiveness without harming employees' mental health. Organizations can apply the JD-R model to shape remote work strategies that reduce harmful demands while increasing structural and emotional resources, which will consequently create a more sustainable and motivating virtual work environment (Delanoejie & Verbruggen, 2020).

2.3.3 Social exchange theory in remote work

Social Exchange Theory (SET), first conceptualized by Blau (1964), suggests that organizational relationships are established and maintained through reciprocal

exchanges between employees and their organizations. When employees perceive positive treatment, i.e; not only tangible benefits such as pay and resources but also intangible benefits like support, trust, recognition from their organization, they are more likely to reciprocate with positive work-related attitudes such as commitment, effort, and loyalty (Blau, 1964). A research has shown that perceived organizational support (POS) – the sense that organization appreciates and supports its employees – is positively linked to satisfaction, organizational identification, and performance (Eisenberger, et al., 2001). When employees feel supported, they often express organizational pride, put additional effort and have a low desire to leave the organization (Kurtessis, et al., 2017).

In the context of remote work, the principles of SET are particularly important due to the physical distance between employees and organizations. The physical workplace allows employees to have frequent, informal interactions that helps to improve organizational bonds. However, in remote environments, these interactions become less frequent and must be more intentionally created (Cropanzano & Mitchell, 2005). Without strong virtual social activities in place, remote employees may feel lack of belonging and unsupported, that can cause reduced motivation to work (Brahm & Kunze, 2012).

The concepts of SET can be applied in remote work settings mainly through employees' perception of organizational support. If organizations provide more support with required remote job resources and facilities such as digital equipments, timely IT support, clear communication, flexible scheduling and mental health support, employees consider these as taking care of them and investing in them (Eisenberger, et al., 1986) (Wang, et al., 2021). This creates employees' sense of duty to reciprocate, that will encourage stronger motivation, greater performance, higher job satisfaction with lower turnover rates (Ansori & Wulansari, 2021).

Additionally, trust, fairness and mental safety are also important for organizations to achieve interchangeable relationships, as outlined by SET. In remote work arrangements, managerial trust can be provided to employees in a way that no micromanagement is done, having a fair performance evaluation and offering autonomy to employees, often indicates respect and trust in employees' abilities (George, et al., 2021). In reciprocal, remote employees are expected to be self-disciplined, collaborative, and adaptable in overcoming remote work challenges. In

addition, maintaining opportunities for social networking, mentorship, and inclusive communication help remote employees maintain a sense of belonging, reinforcing the relational aspect of work often weakened outside of physical offices (Bal & Bulgur, 2023).

Social Exchange Theory also helps explain the emotional perspective of remote work. When organizations create isolation, lack of recognition, or unclear expectations, employees may feel that their psychological needs are unsatisfied, leading them to disengage from work and show lower levels of motivation (Lyubykh, et al., 2022). In contrast, motivation, psychological well-being and organizational loyalty are increased when organizations demonstrate empathy, listen actively and appreciate employees' contributions, thereby creating a positive feedback loop (Zito, et al., 2018).

2.4 Employee Engagement in Remote Work Settings

Employee engagement refers to the degree to which employees dedicate their physical, cognitive and emotional efforts to their work. In remote work environments, this multidimensional framework (Kahn, 1990; Saks, 2006) has acquired new dimensions. Many scholars mention that the remote working is not a short-term adaptation but a long-term transformation, which requires new techniques to manage employee engagement (Kniffin, et al., 2020) (Bailey & Breslin, 2020). As stated in the findings of Shokrollahi (2023), engagement means both physical and mental attachment to the organization. It is difficult for employees to be emotionally and physically engaged while working remotely as well as it is challenging for employers to manage these engagements to be maintained. As a result, most of the studies indicate that regular organizational support, effective communication systems and an intensive support on employees' emotional well-being are necessary to achieve the high level of engagement in virtual work arrangements (Vaziri, et al., 2020) (Ipsen, et al., 2021).

2.4.1 Emotional engagement in remote work

Emotional engagement can be defined as employees' affection towards their job, peers and organization. Affection means devotion, satisfaction and a feeling of connectedness within one's job, which are the primary emotional characteristics to be

motivated and committed (Kahn, 1990) (Saks, 2006). In physical office job settings, these emotions can be established by keeping social interactions, having physical recognition and appreciation as well as enjoying a shared organizational culture. However, these social bonds are restricted in remote work settings due to the lack of physical connection and support (Hung, et al., 2004). In several studies about working in Covid-19 period, employees reported that they are mentally exhausted, detached and isolated, which cause them deengaged and demotivated towards job (Kniffin, et al., 2020). For instance, Errichiello & Pianese (2021) stated in their studies that employees, who did not access to continuous organizational support during remote working duration in Covid-19 period, were likely to experience negative feelings such as stress and burnout, that led them challenges in engaging in their work. These virtual employees felt a lack in sense of belonging from their colleagues, supervisors or orgnaizations. This shows that the emotional bonds are difficult to maintain in virtual work arrangements. Additionally, Gillet et al. (2021) also argued in their studies that remote work is sometimes similar to “double-edged sword”. This means that although remote working can provide benefits such as flexibility and work-life balance for some employees, it can also conflict work and personal lives of some employees, which may probably lead them to increased stress and decreased commitment towards their job and organizations.

Despite these difficulties, emotional engagement can be achieved if appropriate systems and methods are applied in remote work arrangement. According to Shokrollahi (2023), if organizations hold virtual team-building activities regularly, provide continuous feedback and create transparent managerial communication, employees’ feelings of belonging and positive feelings towards job can be encouraged. Remote employees who participated in this study responded that they expect constant check-ins, feedback loop, emotional support and daily social interaction activities from their organizations for them to be engaged while working remotely. Specifically, employees are more likely to trust in their organizations and satisfy with their jobs if their organizations create communication channels and make frequent communications and give recognition to them (Morgeson, et al., 2010).

In some studies, it is even found that remote work arrangements, that have a good structure and system, can increase employees’ emotional engagement towards work. For instance, Stavrova et al. (2023) discovered that employees reported higher

levels of organizational trust in remote work arrangements than in their in-office contexts. This finding reveals that when remote work is structured with clear expectations and supportive policies, it can increase emotional or affective bonds across organizations. In this situation, trust serves as an emotional bridge in order to compensate the absence of physical connection and strengthen organizational identification (Gillet, et al., 2011).

2.4.2 Cognitive engagement in remote work

Cognitive engagement is defined as the degree of mental effort, concentration and commitment an employee contributes to their tasks in the context of workplace. It is characterized by an employee's willingness to put effort, pay attention, and commit intellectually to job duties (Saks, 2006). In remote work settings, cognitive engagement is an essential factor in influencing employees' productivity and overall performance due to the lack of physical connection and direct supervision as in traditional working styles (Silva & Lopes, 2021).

In traditional work offices, cognitive engagement is mostly achieved by having structured schedules, providing direct managerial support, and creating collaboration projects. On the other hand, remote employees are required to be more self-discipline and they need to have a strong intrinsic motivation for concentrating on jobs and maintaining job engagement (Lippe & Lippenyi, 2019).

In remote work arrangements, cognitive engagement can be improved through providing employees with flexible scheduling, autonomy, clear goals and required technical and digital support. As suggested by the Job Demands-Resources (JD-R) model, high job resources such as clarity in job activities, freedom in decision-making, control over one's own job schedule as well as access to relevant tools and technologies, may reduce the negative influence of job demands and will increase the level of engagement (Schaufeli & Taris, 2019). For instance, in one existing research, it is indicated that if employees who are working outside of the office perceive their supervisors or organizations value them and provide trust to them for making decisions on their own, they feel trusted and show a greater cognitive engagement towards their job duties (Sardeshmukh, et al., 2012). Moreover, another study mentioned that if organizations create effective communication channels and set clear goals, work structure and deadlines,

employees will be able to have more concentration with a higher cognitive efforts in remote work environments (Charalampous, et al., 2018).

In addition, many current studies suggest that the need to use technology and digital tools in remote working can have both positive and negative influences on employees' cognitive engagement. In terms of benefits, digital tools and platforms such as performance tracking systems, e-meetings and collaboration applications, can assist in job coordination and team works, which lead employees to focus mentally (Rudolph & Zacher, 2024). However, negative effects such as high screen-time, digital stress, multitasking, easy access to endless notifications can lead to mental fatigue and cognitive burden, which in turn cause reduction in engagement towards their jobs (Rasool, et al., 2022). For strengthening cognitive engagement in e-working settings, organizations should develop work structures that set limits for working hours to make sure unnecessary cognitive burden are reduced to focus better on completing complicated duties without distractions (Newport, 2016).

2.4.3 Behavioral engagement in remote work

Behavioral engagement is defined as employees' extended efforts and actions to show their dedication and proactive attitudes towards their jobs (Kahn, 1990) (Saks, 2006). These actions involve continuous high overall performance, proactivity, deliberate contribution to team and organizational objectives as well as voluntary efforts in organizational activities beyond formal job requirements (Rich, et al., 2010). In remote work settings, this type of engagement is crucial because it depends highly on employees' self-discipline over their actions to complete job duties. Additionally, managers have very limited control and have little choice but to trust employees through virtual outcomes for assessing their performance (Mazmanian, et al., 2013).

As suggested in previous studies, remote employees are more likely to be engaged behaviorally when autonomy, flexibility and autonomy are provided. Respondents in the research of Shokrollahi (2023) said that their motivation and productivity are increased when organizations give them trust and freedom to make their own decisions over their job tasks and scheduling. This report is agreed in another study by mentioning that if remote employees are provided with clear goals and expectations along with required authority and flexibility, they show a high

behavioral performance through increased self-discipline and taking initiative on their duties (Garg & Rijst, 2015).

From another point of view, there are also challenges in remote working that can negatively affect behavioral engagement. In the studies of Baert et al. (2020) and Wang, et al. (2021), it is argued that employees in remote work contexts are struggling to maintain their motivation and engagement for allowing them to complete their work tasks proactively due to work-life conflict, lack of physical communication, absence of informal conversations among colleagues, disrupted working environments, social isolation and lack of a sense of belonging. These challenges are more significant for employees who depend greatly on external reinforcement for their motivation. Without frequent face-to-face interaction and regular feedback, some employees may find it difficult to maintain greater behavioral engagement over time. Similarly, Spataro (2020) reported in his study that employees may feel pressured to constantly appear online while working remotely, leading to increased burnout and minimal psychological investment without genuine commitment.

To mitigate these challenges, organizations must reinforce engagement through other means. As suggested by JD-R model, organizations can provide sufficient work resources such as performance feedback, supportive leadership and access to digital tools, in order to support remote employees to engage behaviorally along with taking initiative and sustaining work discipline (Lesener, et al., 2020). Organization culture is also linked to behavioral engagement. Macey & Schneider (2008) stated that employees who feel emotionally connected to their team and organizations tend to go beyond their formal job responsibilities. Hence, organizations can provide comprehensive remote support networks and trust to create a remote culture where behavioral engagement is recognized and reinforced (Aroles, et al., 2019).

2.5 The Relationship between Motivation and Engagement

A growing body of empirical research demonstrates a consistent and significant relationship between employee motivation and engagement. Studies have shown that when employees are intrinsically motivated, driven by interest, enjoyment, or alignment with personal values, they tend to exhibit higher levels of

emotional, cognitive, and behavioral engagement (Christian, et al., 2011) (Ryan & Deci, 2017). This relationship is specifically significant in remote work arrangements, in which motivation from self-discipline is very important for maintaining concentration and commitment without direct supervision from managers (Molino, et al., 2020) (Wang, et al., 2021).

Self-Determination Theory (SDT) states that the psychological needs (autonomy, competence, and relatedness) of individuals are met, their intrinsic motivation increased, which lead them to focus and engage better on their tasks (Deci & Ryan, 2000) (Van Den Broeck, et al., 2016). Evidences from previous studies agree that employees who are provided with autonomy and trust have a higher level of engagement, dedication and motivation towards their job duties (Gagne & Deci, 2005) (Rich, et al., 2010). On the other hand, extrinsic motivation such as working only for rewards or completing tasks to avoid negative consequences, is related to short-term engagement and it is difficult to maintain in the long-term (Bakker & Demerouti, 2016) (Ryan & Deci, 2017).

In the context of remote work, since it relies heavily on self-discipline, intrinsic motivation is particularly more important. The research conducted by Jeevitha, 2020 found that remote employees who are intrinsically motivated show a higher level of engagement and job satisfaction compared to those who are extrinsically motivated by rewards. Similarly, Bailey & Madden (2015) also stated that motivational factors that are aligned with organizational objectives can improve employees' engagement more, even when working outside of office. Furthermore, Deci et al. (2017) have found in various workplace studies that intrinsic motivation has obviously brought not only deeper engagement but also higher persistence and lower turnover rates.

In addition, a study done by Kim & Park (2014) reported that employees with greater intrinsic motivation were more energized and dedicated at work. Another study by Ryan & Deci (2017) conducted across different industries including education, healthcare and remote corporations highlighted that organizations that provide support based on employees' needs, have a higher chance to retain engaged employees with high performance.

In conclusion, the existing literatures outline that motivation (especially intrinsic and internal driven) is an essential preliminary factor that drives

engagement. Realizing the relationship between motivation and engagement this link is important for organizations to design e-working practices and remote work management systems which lead to high employees' performance and well-being (Mazzetti & Schaufeli, 2022).

2.6 Measurement Tools for the Study

In order to run a comprehensive evidence-based analysis for studying the impact of remote work on employees' motivation and engagement, it is required to use validated measurement scales for analyzing different dimensions of these variables. In this research, three validated scales are applied to gain concepts of the study. The scales applied are Multidimensional Work Motivation Scale (MWMS), Job Engagement Scale (JES) and E-Work Life Scale (EWLS). These scales have been applied widely in academic and professional studies, and show the result of greater validity and reliability across different population and contexts (Gagne, et al., 2015) (Schaufeli, et al., 2002) (Grant, et al., 2013).

2.6.1 Multidimensional work motivation scale (MWMS)

The Multidimensional Work Motivation Scale (MWMS) was found and validated by Gagne et al. (2015) in order to measure different types of motivation, which include intrinsic motivation, identified regulation, introjected regulation, external regulation (social and material), and amotivation. All these types of motivation are aligned with Self-Determination Theory (SDT). This scale forms a comprehensive model for studying the degree and reasons of to what extent employees are motivated and why they are motivated. These are crucial to know in remote work environments where there are no external motivational factors such as direct supervision and physical communication.

The MWMS is made up of 19 items with a seven-point Likert scale. The Likert scale ranges from 1 to 7, with 1 being 'not at all' and 7 being 'completely'. Every item assesses different reasons for individuals to engage in their work. For example, intrinsic motivation items are for assessing one's motivation resulting from enjoyment or interest (Because I enjoy this work very much) while external regulation items are for analyzing motivation due to external factors (Because others will respect me more if I do this job) (Deci, et al., 2017) (Gagne, et al., 2015).

The MWMS has been validated throughout various languages and cultures with a high internal consistency value ($\alpha > 0.70$) and strong factor validity (Gagne, et al., 2015). It has also been validated in remote and hybrid work settings by applying in the studies regarding remote work and motivation (Trepanier, et al., 2022) (Santos, et al., 2022).

The MWMS is applied in this study for observing various kinds of motivation in remote work settings. This is also used to assess how internal driven motivation can influence employees' level of engagement and well-being in remote work. Since SDT states that satisfying the psychological needs of employees is essential for increasing employees' motivation, MWMS will be a relevant tool to measure this relationship in the context of remote work.

2.6.2 Job engagement scale

Rich et al. (2010) developed the 18-item Job Engagement Scale (JES) for assessing employees' job engagement in organizational studies. This scale is established based on foundational theory by Kahn's (1990), which mentioned that individual's engagement in their job responsibilities involves combining physical, emotional and cognitive commitment altogether. The JES was developed specifically for assessing these three components which are physical engagement, emotional engagement and cognitive engagement, in order to provide various perspectives on how employees engage in their works.

Each component is assessed with six items. Five-point Likert scale is used ranging from 1 being 'Strongly Disagree' to 5 being 'Strongly Disagree'. Some items as an example include 'I work with intensity on my job' (physical engagement), 'I am enthusiastic in my job' (emotional engagement as well as 'I concentrate on my job when I am working' (cognitive engagement) (Rich, et al., 2010).

The scale's reliability has been tested and resulted with high internal consistency (overall α values of above 0.90), validity was also confirmed through discriminant analysis (Rich, et al., 2010). Due to being a reliable and validated scale, it has been used in various organizational psychology studies as well as it has been applied in researches that study about remote and hybrid work settings in order to measure how employees' engagement is affected in e-working contexts. For instance, it is used in the study conducted by Makikangas et al. (2022) for observing the

strategies to maintain employees' emotional and cognitive engagement in remote work arrangements where interactions are only through online.

Overall, JES is considered to be applied in this study for measuring the link between remote work and engagement because of its strong reliability and proven validity. These three dimensions of employees' engagement will provide a comprehensive view on how employees engage physically and emotionally in virtual workplace.

2.6.3 E-work life scale

The **E-Work Life Scale (EWL)**, developed by Grant et al. (2013), is a recognized and validated scale for assessing employees' experiences with remote or flexible work arrangements. The scale was introduced due to the rising popularity of remote work, especially in knowledge-intensive sectors, as well as the requirement for a validated scale that can examine the dimensions of digital work environments.

The EWL scale involves 17 items with four primary dimensions:

1. **Flexibility** – The sense of freedom and individuals' ability to adjust their working hours according to their needs.
2. **Productivity** – The degree to which individuals believe that remote working increases their job effectiveness.
3. **Work–Life Conflicts** – The perceptions of individuals on the degree to which remote working blurs professional and personal boundaries.
4. **Organizational Trust** – The level of trust that individuals have in their organizations and their managerial practices.

The items are measured on a Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”), which allow quantitative analysis of employee experience in e-working contexts. Example items include: “E-working gives me more control over my work schedule” (flexibility) and “I feel isolated when e-working” (work-life conflicts).

Studies that use the EWL scale have shown as strong internal reliability over all four dimensions (Cronbach's α ranging from .75 to .88) and have been applied in diverse organizational contexts (Grant, et al., 2013). For example, Spurk & Straub (2020) used the scale to explore how productivity and job satisfaction were

influenced by remote working factors during the COVID-19 period. Furthermore, Chong et al. (2020) also employed the scale in their study and found out that higher values in flexibility and trust are positively linked with employee engagement and well-being, while increased work–life conflict has a negative impact on motivation and mental health issues.

As majority of the organizations are adopting remote work practices in today’s work environment, the E-Work Life Scale is particularly appropriate for studies exploring remote work experiences of employees. This scale can serve as a connection between traditional workplace and modern working practices. As a result, this scale can be considered as a relevant tool for this study to examine the influences of remote work on employees.



3. RESEARCH METHODOLOGY

3.1 Research Design

This study applies quantitative research design for statistically analyze the relationships between the study variables: Remote Work, Motivation and Engagement. In quantitative design, it focuses on the collection and analysis of numeric data in order to test the hypotheses and relationships between variables (Creswell & Creswell, 2018). This design is appropriate for this study since it will allow for the objective assessment of how employees' motivation and engagement are impacted by remote working through the use of diverse sample.

In addition, a cross-sectional survey method is used for the collection of data at a single instance. This method is widely applied in social science researches for gathering a summary of variables without changing any research conditions (Bryman, 2016). A cross-sectional survey is suitable for this study for understanding the updated perspectives of remote working experiences due to its rationality and convenience.

A structured online questionnaire is the primary data collection method for this study. It is stated that online surveys are useful for collecting a large volume of structured data, which can be used for statistical analysis and applicability of results (Fowler, 2014). The online questionnaire of this study is divided into four parts. The first part is for collecting demographic information of participants. In the second section, information about remote working experiences are collected by using E-Work Life Scale. The remaining two sections collect the information regarding motivation and engagement from current remote employees through the application of validated scales: Multidimensional Work Motivation Scale and Job Engagement Scale respectively.

Additionally, the research applies a non-probability convenience sampling method. Convenience sampling is defined as gathering participants who are easily accessible and open to participate (Etikan, 2016). Although this approach has some

limitations such as generalizability, it is suitable for exploratory studies with time and resource constraints. Participants for this study were recruited through professional and social media platforms such as LinkedIn and Facebook, targeting individuals who are currently engaged in remote working arrangements. Ethical considerations were considered by informing participants about the voluntary nature of the study, ensuring anonymity, and obtaining their consent before participation.

The data obtained from survey questionnaire were analyzed using descriptive statistics to briefly present the sample characteristics and inferential statistics (correlation and regression analyses) to test the research hypotheses. SPSS (Statistical Package for the Social Sciences) was used for statistical analysis due to the ease of accessibility and wide application (Pallant, 2020).

Overall, this research is designed to be systematic, ethical, and comprehensive for addressing the research questions and contributing practical knowledge to the understanding of the influence of remote working on employees' motivation and engagement.

3.2 Sampling Method

A non-probability convenience sampling method is used in this study for recruiting participants. Convenience sampling involves selecting participants who are easily accessible and willing to take part in the research (Etikan, 2016). This sampling method is widely applied in social science studies if there is a constraint in time and resources or lack of access to a wider population (Bryman, 2016). Since this study is for exploratory and there are some limitations, the convenience sampling method is regarded as a suitable method for this research.

The population targeted for this study are employees who are currently working remotely (both hybrid and fully remote), across various geographical locations, industries and different positions. The online survey was shared through professional and social platforms such as LinkedIn and Facebook groups for recruiting participants to respond online questionnaires. The introduction about online survey was also shared to explain briefly on the purpose of the study and to inform that participation to the survey is voluntary as well as the data will be anonymous and be kept confidential.

The following criteria are set for respondents of this study:

- The respondents' age must be 18 or over
- They should be employed with a full-time, part-time or freelance jobs
- They are required to work remotely at the moment, in either hybrid settings or fully remote arrangements
- They should possess the willingness and ability to complete the survey in English

There was no limitations about nationality of the respondents as well as no restrictions were set in terms of industries and the size of organization they work in, for increasing diversity and deeply understanding of remote work experiences across various situations.

Although there is a possibility for bias, convenience sampling method allows for gaining knowledge about trends and relationships, that can give recommendation for future studies (Etikan, 2016). Additionally, actions were taken for reducing bias through the recruitment of participants from different demographic backgrounds, work roles and job industries.

A total of 362 responses were collected and 344 responses were considered as valid for further statistical analysis. According to minimum sample sizes in social science research by Hair et al. (2010), this sample size is sufficient to run the discussed statistical methods, which include regression and correlation analysis.

3.3 Data Collection Methods

For this research, data were collected by using online self-administered questionnaire. The advantages of online questionnaire include access to wide geographical locations, cost and time saving along with being able to keep participants' data confidentially (Wright, 2005) (Evans & Mathur, 2005). The target participants of this research are remote employees who can be in different locations across different regions. As a result, an online survey is the most suitable method for this study to access them for data collection.

Google Forms is used to develop online self-administered questionnaire due to its quick and easy accessibility along with user-friendly interface. In the beginning of the online survey form, a short explanation about the purpose of the research, the

voluntary participation, and assurance about respondents' confidentiality and anonymity was written for making sure respondents have required knowledge and privacy for participating in this survey. An additional explanation was also added to inform participants that their data will only be used for the purpose of academic research, and they have the rights to stop participating anytime before submitting the form.

The survey link was shared through professional platform such as LinkedIn and social media platform such as Facebook Groups where there are professional networking communities and remote work communities. For maximizing the sample size, the research also applies snowball sampling by asking respondents to forward the online survey to their peers or colleagues who are working remotely at the moment. This method is also useful for increasing the diversity of respondents (Goodman, 2011).

The survey was open to participation for approximately eight weeks. During this period, reminders were also sent for encouraging participation. There were no offerings of incentives to participate the survey for maintaining the voluntary purpose and avoiding bias.

By using Google forms, all data were collected and saved automatically, which can only be seen by the researcher. After unpublishing online survey form, the data were exported into Microsoft Excel Spreadsheet for initial screening. During the screening process, the invalid responses that were not complete and not align with research criteria were removed for maintaining the validity and reliability of analysis. After screening, the data were finally transferred into Statistical Package for the Social Sciences (SPSS) for further statistical analysis (Pallant, 2020).

3.4 Data Analysis Methods

Quantitative data analysis method is applied in this research for investigating the connection among remote work, employees' motivation and employees' engagement. The data collected from online questionnaire were screened, structured and analyzed by using SPSS. The analysis involves both descriptive and inferential analyses for providing discussion on the tested variables and their relationships.

3.4.1 Descriptive statistics

The demographic factors of survey respondents were summarized and presented by using descriptive statistics. In order to provide a summary on the age, gender, job status, job arrangement and other demographic information, mean values, standard deviation, frequency and percentage were calculated. Based on the summary of these demographic data, further interpretation could be done within the extended population (Field, 2013).

3.4.2 Reliability and validity

Reliability is defined as testing whether the measurement scales applied are accurate and consistent internally when studying the variables (Tavakol & Dennick, 2011). Cronbach's alpha value will be calculated in this study for assessing reliability through the measurement of the degree to which the items in a scale are correlated and consistent to each other. For social science researches, a Cronbach's alpha value of 0.70 or above is regarded as good and acceptable.

Validity is about checking whether the measurement scales used are accurately measuring the variables included in the research (Creswell & Creswell, 2018). In this study, content validity and construct validity will be checked. Content validity is already confirmed by applying recognized scales that have been broadly applied and validated in previous researches. Construct validity will be tested by evaluating exploratory factor analysis (EFA), that analyzes loadings of the factor to check whether each item is correctly measured within theoretical model. As recommended by Hair et al. (2019), the factor loadings of 0.50 or above can be considered as acceptable in the social science researches.

3.4.3 Correlation analysis

Pearson's correlation coefficient (r) was applied to investigate the strength and direction of the relationships between key variables of this study, which are remote work, employee motivation, and engagement. This statistical method is a parametric test that measures the linear association between two continuous variables. The values of Pearson's correlation coefficient (r) ranging from -1 to +1, where:

- **+1** indicates a perfect positive linear relationship,

- **-1** indicates a perfect negative linear relationship,
- and **0** indicates no linear relationship between the variables (Field, 2013).

3.4.4 Regression analysis

Following the Correlation Analysis, Regression Analysis was conducted to explore the hypothesized relationships between remote working and the dependent variables: employee motivation and employee engagement. This statistical technique is appropriate when the goal is to determine the combined and individual influence of multiple independent variables (predictors) on a single continuous dependent variable (Hair, et al., 2019).

Three separate regression models were tested. The first regression model investigated whether remote work acts as predictors of employee motivation, the second regression model assessed the influence of remote working on employee engagement and the third regression model explores the impact of motivation on engagement. Standardized beta coefficients (β), R-squared values, and significance levels (p-values) were reported and interpreted to evaluate the strength and significance of the relationships.

4. RESULTS AND FINDINGS

4.1 Demographic Profile of Respondents

Descriptive statistical analyses were made to comprehend sample demographic characteristics. The following table displays the descriptive statistics of demographic variables.

Table 4.1: Descriptive Statistics

Variable	Categories	n	%
Gender	Female	156	45.3%
	Male	188	54.7%
Age (in years)	Mean (SD)		39.74 (13.73)
	Min – Max		18 – 64
Education Level	High School Diploma or Equivalent	107	31.1%
	Bachelor’s Degree	98	28.5%
	Master’s Degree	88	25.6%
	Doctorate (Ph.D.)	51	14.8%
Job Position	Managerial	137	39.8%
	Non-Managerial	206	59.9%
Role Tenure	Less than 1 year	134	39.0%
	1–3 years	80	23.3%
	4–6 years	64	18.6%
	More than 6 years	66	19.2%
Remote Working Experience	Less than 1 year	137	39.8%
	1–3 years	93	27.0%
	More than 3 years	114	33.1%
Dedicated Workspace	Yes	178	51.7%
	No	166	48.3%

The online survey collected 344 valid responses. In terms of gender, 54.7% of respondents are identified as male while 45.3% are identified as female, which shows a fairly equal distribution. The age of survey respondents range from 18-64 years old, which resulted a mean age of approximately 40 years old and a standard deviation of estimately 13.7 years old. This shows a diverse age range in respondents of the survey. Regarding education status of respondents, one-third of respondents are

holding a high school diploma, 28.5% of the respondents are holding a bachelor degree, 25.6% holding master and the rest are holding Phd degree. Most of the respondents reported that they work in non-managerial roles while a few (39.8%) is working in managerial positions.

It is reported that 39 % of respondents have been working in their current job roles for less than one year, 23.3% of respondents for one to three years, 18.6% for four to six years and a few respondents working for more than six years. Remote-working experience ranged with, 39.8 % had worked remotely for under a year, 27.0 % for one to three years, and 33.1 % for more than three years. A little over 50% of respondents reported having a dedicated workspace for remote work, while 48.3 % did not. Overall, the descriptive statistics show a mature, well-educated workforce with a range of remote-working experience and relatively balanced representation by gender and managerial status.

4.2 Reliability and Validity Analysis of the Scales

In order to prove the psychometric soundness of the scales applied in this thesis, which are E-Work Life Scale (EWL), Multidimensional Work Motivation Scale (MWMS) and Job Engagement Scale,(JES), reliability and validity analyses were conducted by calculating Cronbach’s alpha values, KMO and Bartlett’s values as well as by conducting factor analysis on each scales. The detailed statistics are shown in the following table:

Table 4.2: Reliability and Statistics

Scales	Items	Cronbach’s α	KMO	Bartlett’s Test (p)	1st component (eigenvalue / variance)	Factor loadings range
E-Work Life (EWL)	17	0.972	0.980	$\chi^2=5893.817$, p < 0.001	11.871 / 69.83 %	0.638 – 0.900
Multidimensional Work Motivation (MWMS)	19	0.925	0.990	$\chi^2=15350.980$, p < 0.001	17.688 / 93.10 %	0.898 – 0.973
Job Engagement Scale (JES)	18	0.988	0.987	$\chi^2=9172.197$, p < 0.001	14.876 / 82.64 %	0.897 – 0.926

E-Work Life Scale (17 items) – Cronbach’s alpha for the EWL scale was 0.972, which falls well under the “excellent” range and indicates very high internal consistency. Validity analysis showed a Kaiser–Meyer–Olkin (KMO) value of 0.980 and a highly significant Bartlett’s Test of Sphericity ($\chi^2 = 5893.817$, df = 136,

$p < .001$), which demonstrates that the data are well suited for factor analysis. Principal Component Analysis extracted a single factor with an eigenvalue of 11.871, accounting for 69.83 % of the variance, and all items loaded strongly on this factor (loadings ranged from 0.638 to 0.900). These results proved that EWL scales have a strong reliability and validity.

Multidimensional Work Motivation Scale (19 items) – The reliability analysis of MWMS also showed that the scale has an excellent internal consistency, with an alpha value of 0.925. The KMO value is 0.990, and Bartlett’s Test of Sphericity is also highly significant ($\chi^2 = 15350.980$, $df = 171$, $p < .001$), which indicates suitability for factor analysis. PCA reveals only one factor with an eigenvalue of 17.688 which explains 93.10 % of the total variance. Factor loadings range from 0.898 to 0.973, which confirms the scale’s strong validity.

Job Engagement Scale (18 items) – Reliability analysis of JES scale reported an alpha value of 0.988, which proves an excellent internal consistency. The KMO value is 0.987 and Bartlett’s Test of Sphericity is significant ($\chi^2 = 9172.197$, $df = 153$, $p < .001$), which means the scale is appropriate for factor analysis. PCA extracts a single factor with eigenvalue of 14.876 which accounts for 82.64% of the variance. In addition, factor loadings of the scale range from 0.897 to 0.926, which is in excellent range. All these results show that JES scale is a strongly reliable and valid scale for measuring engagement.

4.3 Correlation Analysis

The Pearson correlation analysis is conducted for exploring the linear relationships among three main variables of the study: Remote work, employees’ engagement and employees’ motivation. The results of correlation analysis shows that all three variables are strongly and positively related to each other:

Table 4.3: Pearson Correlation Matrix

Variables	EWL	MWMS	JES
EWL	1	0.915**	0.912**
MWMS	0.915**	1	0.939**
JES	0.912**	0.939**	1

Note: **Correlation is significant at 0.01 level (2-tailed)**

EWL and MWMS: $r = 0.915$, $p < 0.001$. Employees who reported more positive remote work experiences also tend to report higher levels of work motivation.

EWL and JES: $r = 0.912$, $p < 0.001$. It is reported that positive perceptions of remote working experiences are highly related with greater engagement.

MWMS and JES: $r = 0.939$, $p < 0.001$. The strongest relationship observed is between motivation and engagement, which confirms that more motivated employees are also more engaged.

All correlations are statistically significant at the 0.01 level (two-tailed). These findings support the study's theoretical model by showing that there is a significant relationship between remote work experiences, motivation and engagement. It is also found that the level of motivation and engagement are also associated with each other.

4.4 Regression Analysis

Corresponding to the research hypotheses, three regression models are tested to determine how remote working experiences influence work motivation and engagement, as well as whether motivation mediates the relationship with engagement. The detailed findings along with regression statistics are presented below:

Table 4.4: Regression Statistics

Hypotheses	Predictor → Outcome	R	R ²	Adjusted R ²	F (df ₁ , df ₂)	Standardised β	p (predictor)
H1	EWL → MWMS	0.915	0.837	0.837	1756.087 (1, 342)	0.915	< 0.001
H2	EWL → JES	0.912	0.831	0.830	1681.214 (1, 342)	0.912	< 0.001
H3	MWMS → JES	0.939	0.881	0.880	2527.940 (1, 342)	0.939	< 0.001

H1: Remote working has a significant impact on employees' motivation.

The first regression model is tested to assess whether perceptions of remote working experiences predict employees' motivation. The model is highly significant with $F(1,342) = 1756.087$ and $p < 0.001$. The analysis provides a correlation coefficient (R) of 0.915 and an R² of 0.837, which means that perceived remote-work conditions explained 83.7% of the variance in work motivation. The standardised

beta (β) for the predictor is 0.915 ($p < 0.001$), indicating a very strong positive effect: employees who experienced positive remote working experiences reported a significant higher motivation. Therefore, H1 is supported.

H2: Remote working has a significant impact on employees' engagement.

The second model examines the impact of remote working on job engagement. This regression model also shows a strong statistical robustness: $F(1,342) = 1681.214$, $p < 0.001$. It yields $R = 0.912$ and $R^2 = 0.831$, indicating that 83.1% of the variance in engagement is accounted for by remote working experiences. The standardised beta coefficient is 0.912 ($p < 0.001$), which again demonstrates a strong positive relationship where employees who received greater flexibility, support and autonomy in remote working environment are more engaged and committed to their jobs. Based on these results, H2 is also validated.

H3: Employees' motivation has a significant effect on their engagement.

The third model tested whether motivation predicts engagement. It shows the strongest effect among the three: $F(1,342) = 2527.940$, $p < 0.001$. The correlation coefficient reaches 0.939, and R^2 is 0.881. This means that motivation explains nearly 88% of the variance in engagement. The standardised beta is 0.939 ($p < 0.001$), indicating a very strong positive relationship, which is, employees with higher level of motivation are more likely to be physically and emotionally engaged in their jobs. Hence, these statistical findings support H3.

All three models demonstrated an exceptional high explanatory power ($R^2 \geq 0.831$), and the standardized betas are all above 0.91, highlighting the strength of the relationships. These findings provided a strong evidence that supportive remote working environments significantly improve both motivation and engagement, and that motivation is a key driver of engagement. All in all, the regression analyses support all hypotheses of this research and suggest that enhancing remote working conditions can lead to increase employees' level of motivation, which then lead to foster higher levels of employee engagement.

5. DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Discussion of Findings

This section will discuss the statistical findings by applying them in the context of the theoretical frameworks and existing literature.

5.1.1 Impact of remote working on motivation (H1)

The regression analysis indicated that perceptions of e-work life (EWL) had a strong positive effect on employee motivation ($\beta = 0.915$, $R^2 = 0.837$, $p < 0.001$). These findings mean that if remote work is supported with required resources such as sufficient technical facilities, flexibility scheduling, autonomy, mental support as well as a sense of belonging, employees' motivation will significantly increase. These findings are in alignment with SDT, which mentions that psychological needs such as autonomy and competence are main factors to drive intrinsic motivation. The resulted strong R^2 value shows that remote working can strongly vary in the level of motivation among respondents of survey form. This is consistent with prior studies that found remote work can improve motivation by removing commuting stress, allowing individuals to organize their works depending on their personal preferences, and giving them more control over how tasks are executed.

However, SDT also emphasizes the need for relatedness, and several qualitative comments from respondents indicated feelings of isolation and the challenge of maintaining interpersonal connection. Although this study did not directly measure relatedness, the strong positive effect of EWL on motivation suggests that the resources provided by remote work (flexibility, technological support, managerial trust) outweighed potential social challenges for most participants. Organizations must ensure that remote work practices and policies provide sufficient structure, feedback and opportunities for social interaction, in order to maintain the motivation of remote employees.

5.1.2 Impact of remote working on engagement (H2)

Remote work also had a significant positive impact on job engagement (beta = 0.912, $R^2 = 0.831$, $p < 0.001$). Engagement can be defined as the degree of cognitive and emotional dedication employees feel in their work. The Job Demands-Resources (JD-R) model suggests that abundant resources (autonomy, support, feedback) can encourage engagement, whereas excessive demands lead to exhaustion and disengagement. The findings of this research support the motivational pathway of the JD-R model: participants who reported better e-work life conditions also reported higher engagement. The strong correlation between EWL and engagement ($r = 0.912$) indicates that employees who perceive remote work as supportive to their well-being likely to feel more committed and passionate to their work tasks.

When compared with previous studies, these results are aligned with studies which reported that employees can concentrate more deeply due to fewer office distractions, less time and energy spent on transportation as well as having more flexibility in scheduling tasks while working remotely. The findings also support the logic of remote working increases employees' engagement due to the easiness for employees to adjust their jobs or work environments according to their personal preferences so that engagement is increased consequently. Regardless of these, it should be noted from the existing studies that remote working can blur the boundaries between personal and professional lives and can increase role conflict, which will lead to reduce employees' engagement over time, when it is not handled effectively.

5.1.3 Impact of motivation on engagement (H3)

The third hypothesis examines whether motivation predicts engagement. The analysis shows the strongest effect among three analyses (beta = 0.939, $R^2 = 0.881$, $p < 0.001$). Motivation explains approximately 88 percent of the variance in engagement, which supports the idea of motivation being the internal driver of engagement. This result is in line with the perspective that employees who are motivated tend to be more engaged with cognitive and physical energy towards their jobs.

The strong relationship between motivation and engagement shows that remote work environments influence employees' engagement by mainly depending

on their level of motivation. This means that if employees' motivation are increased through providing them with autonomy and required resources, their level of engagement also increases in remote work settings. This shows that it is important for employers to create motivating remote work conditions for employees to stay engaged and productive while working remotely.

5.2 Theoretical Implications

This research contributes theoretically to organizational psychology by confirming widely-used motivation and engagement theories can also apply in remote work settings. The findings align with Self-Determination Theory by proving with statistical analysis that when psychological needs like autonomy and competence are satisfied, employees tend to be motivated as well as if organizations design effective and supportive remote work practices, their motivation will be maintained for a long time. The findings also show that Job Demands-Resources Model can be applied in remote work settings through effective management of resources and demands. This means that if organizations provide required and sufficient remote job resources such as technical support, trust, flexibility and emotional support for reducing the demands of remote work such as technical stress, social isolation and information overload, employees' motivation and engagement can be strengthened in virtual settings. Finally, the strong relationship between motivation and engagement supports the concept of Social Exchange Theory in remote work arrangements by confirming that if employees perceive that their organizations support and trust them, they become more engaged and reciprocate the trust with high productivity and performance.

These theoretical contributions of the research highlight that remote work can influence positively on employees' level of motivation and engagement if it is designed effectively. In other words, if employees are provided with sufficient support from organizations, remote work can be the driver for both motivation and engagement.

5.3 Practical Implications for Organizations

The results of this research can also provide recommendations for managers and HR professionals with several useful implications in order to develop effective remote work arrangements:

- Providing increased technical support: Well-structured systems such as providing secure technology and access to high-speed internet along with user-friendly platforms as well as reliable virtual private networks should be supported for remote employees to make their work easier. Organizations should also make sure that employees receive technical training and assistance for developing or improving their digital skills. competence.
- Offering autonomy with clear responsibility: Supervisors or managers should trust employees and give them autonomy over scheduling tasks or making job decisions. However, this trust and autonomy should be provided along with clear performance targets and timely feedback should be given for making sure that employees also take their responsibilities along with their preferences. In addition, a clear role and boundary should be made to prevent employees from overworking and conflicting work and life.
- Creating social connectedness: As findings reported that remote employees who are well connected with their teams while e-working are likely to be more motivated and engaged, organizations should also reduce social isolation and foster emotional well-being by arranging virtual social events, mentoring schemes, and team-building activities. Managers or supervisors have to check in with their employees regularly and nurture psychological safety to reduce feelings of isolation.
- Managing workload and technostress: Organizations can consider monitoring digital communication norms to reduce information overload, and supporting employees in developing effective routines, taking regular breaks, and maintaining healthy work-life boundaries.
- Developing support system for mental well-being: According to the results of this research, organizations should offer employees emotional support as well, such as mental health training, counselling, making sure employees are not overly stressed because of work overload. Since there is no physical interaction and it is difficult for communication, these support systems need

to be in place for maintaining employees' engagement and motivation in long-term.

5.4 Conclusions

This research studies whether remote work arrangement has an influence on the level of motivation and engagement of employees as well as confirms the relationship between motivation and engagement. Depending on Self-Determination Theory, Job Demands-Resources Model and Social Exchange Theory, this study applies validated and reliable scales, which are E-Work Life Scale, Multidimensional Work Motivation Scale and Job Engagement Scale. Online survey form is shared with remote employees, and 344 responses were received, for which statistical analysis was done by using SPSS for testing the hypotheses of the study. The results of statistical analysis are mentioned below:

- Employees' motivation and engagement can be impacted by their remote working experiences. Positive remote experiences affect positively on their motivation and engagement towards their jobs.
- Motivation and engagement have a strong relationship between each other. It can be considered as motivation is the driver of engagement.
- Every hypothesis of this study is supported, which contributes theoretically by applying well-known motivation and engagement theories in the remote work contexts.

The results highlight that employees' motivation and engagement can be increased for higher productivity and performance in remote work settings, where there are sufficient resources provided. Beyond its role during the pandemic, remote work remains a practical long-term option that can help organisations maintain employee motivation and engagement.

These findings were compared with previous empirical studies to enhance the depth of analysis. A systematic review by Ferrara et al. (2022) found that remote workers tend to experience higher job satisfaction, engagement and motivation compared to office-based employees when they are provided with autonomy, flexibility and when they receive strong support from colleagues and supervisors. The same research noted that remote working is most beneficial when it reduces

work-life conflict through flexible scheduling along with clear boundaries and goals. In the cross-sectional research made by Ng et al. (2022) on knowledge workers in Hong Kong, it is reported that virtual working has a positive relationship with job performance, when this modern working style is assisted with external resources such as technical training and organizational support along with the internal factors like flexibility in scheduling, a sense of control and belonging which bring positive feelings about work. These findings from existing studies are aligned with my research results on how remote working has a positive influence on employees' motivation and engagement.

From another point of view, many researches have found out that there are negative sides of remote working as well. Ferrara et al. (2022) noted in their research that there is a risk in blurring employees' personal and professional lives as well as increasing workload and pressures while working remotely where there are no physical guidance and support from managers. Similarly, Galanti et al. (2021) also stated in their study that the need for self-discipline together with factors such as disrupted home environments, social isolation, and work-life conflict can lead employees to decreased engagement and consequently cause low productivity and performance. They have also pointed out in the research that poor or insufficient communication may result in higher stress and reduced productivity. Longitudinal research by Briman et al. (2024) further revealed that job engagement may be reduced after a sudden shift to remote work and that employees who responded these changes by increasing challenging job demands often experienced a greater decline in engagement, suggesting that some adaptative strategies can increase employees' exhaustion rather than increase their satisfaction.

Overall, evidences from existing studies suggest that remote work has the potential to either enhance or reduce employee motivation and engagement, depending on the availability of resources and the effectiveness of work-life management. The consistent positive relationships identified in this study reflect that the respondents are provided with high levels of autonomy, technological support and managerial trust. However, it is important to note that the contrasting evidence reveals about the risk of decreasing employee motivation and engagement if the remote work is perceived by employees as high job demands and social isolation without adequate resources and support. As a result, organizations need to establish

effective remote work policies, set clear expectations and goals, provide sufficient support and resources both in terms of technical and well-being and create a motivating remote environments by having frequent virtual social bonding activities to make sure employees are able to work with convenience without work overload in remote work settings for them to remain motivated and engaged.

5.5 Limitations and Future Research

Although this study offers recommendations and valuable insights in terms of academic and practical, there are also some limitations that should be noted for future studies. Firstly, this study applies convenience sampling method with online survey questionnaire, which can lead to generalization with sample may not reflect every remote employee. The future research should apply a more comprehensive sampling method to prevent this limitation. Secondly, cross-sectional design used in this study can also restrict the study from explaining cause-and-effect relationships. Longitudinal research design should be applied in future studies for tracking changes in employees' motivation and engagement over time. Finally, factors that are not considered and measured in this research, such as employees' personality traits, leadership style of managers and organizational culture, may also have an impact on motivation and engagement of employees in remote work settings. Future studies can consider these unmeasured factors together with adopting mixed-method approaches, involving different cultural contexts and observing mediating factors such as gender, age and the nature of jobs. In addition to this, future researches can also assess long-term consequences of remote work such as career development, innovation and organizational commitment.

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APPENDICES

Appendix-1: Survey Questionnaire

A Study of The Impact of Remote Work on Employees' Motivation and Engagement

I am an MBA student at Istanbul Gedik University, conducting study on the impact of remote working on employees' motivation and engagement. This survey aims to gather insights from individuals working remotely. Your participation in this survey is voluntary. Your responses will be used solely for academic research purposes, and all responses will remain confidential and anonymous. The survey will take approximately 5 minutes to complete. Your insights are valuable for this research, and I sincerely appreciate your time and contribution. Please proceed with the questions, if you agree to participate.

YUN MI MI OO

ISTANBUL GEDIK UNIVERSITY

MBA Student

Demographic Information

The following questions are related to demographic information, such as age, gender, and work experience. These data will be used for analysis purposes only and will remain strictly confidential.

1. Do you currently work remotely (fully or partial)?

Mark only one oval.

Yes

No (If you select 'No,' you do not need to continue with the survey. Thank you for your time!)

2. What is your gender?

Mark only one oval.

Female

Male

3. What is your age?

4. What is your highest level of education?

Mark only one oval.

High School Diploma or Equivalent

Bachelor's Degree

Master's Degree

Doctorate (Ph.D.)

5. What is your current job position?

Mark only one oval.

Managerial

Non-Manager

6. How long have you been working in your current role?

Mark only one oval.

Less than 1 year

1-3 years

4-6 years

More than 6 years

7. How long have you been working remotely?

Mark only one oval.

Less than 1 year

1-3 years

More than 3 years

8. Do you have a dedicated space outside of office to work remotely?

Mark only one oval.

Yes

No

Remote Working

The following questions focus on your remote work experience. Please answer based on your current work arrangement.

9. My organisation provides training in e-working skills and behaviours.

Mark only one oval.

1 2 3 4 5

Strongly Strongly Agree

10. My e-working takes up time that I would like to spend with my family/friends or on other non-work activities.

Mark only one oval.

1 2 3 4 5

Strongly Strongly Agree

11. When e-working remotely I often think about work related problems outside of my normal working hours.

Mark only one oval.

1 2 3 4 5

Strongly Strongly Agree

12. I am happy with my work life balance when e-working remotely.

Mark only one oval.

1 2 3 4 5

Strongly Strongly Agree

13. Constant access to work through e-working is very tiring.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

14. When e-working I can concentrate better on my work tasks.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

15. My supervisor gives me total control over when and how I get my work completed when e-working.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

16. My organisation trusts me to be effective in my role when I e-work remotely.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

17. I trust my organisation to provide good e-working facilities to allow me to e-work effectively.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

18. E-working makes me more effective to deliver against my key objectives and deliverables.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

19. If I am interrupted by family/other responsibilities whilst e-working from home, I still meet my line manager's quality expectations.

Mark only one oval.

1 2 3 4 5

Strongly Strongly Agree

20. When e-working from home I do know when to switch off/put work down so that I can rest.

Mark only one oval.

1 2 3 4 5

Strongly Strongly Agree

21. My work is so flexible I could easily take time off e-working remotely, if and when I want to.

Mark only one oval.

1 2 3 4 5

Strongly Strongly Agree

22. My line manager allows me to flex my hours to meet my needs, providing all the work is completed.

Mark only one oval.

1 2 3 4 5

Strongly Strongly Agree

23. I feel that work demands are much higher when I am e-working remotely.

Mark only one oval.

1 2 3 4 5

Strongly Strongly Agree

24. My overall job productivity has increased by my ability to e-work remotely/from home.

Mark only one oval.

1 2 3 4 5

Strongly Strongly Agree

25. My social life is poor when e-working remotely.

Mark only one oval.

1 2 3 4 5

Strongly Strongly Agree

Work Motivation

The following questions focus on your work motivation in remote work arrangements. Please indicate the extent to which each statement applies to you, with 1 being 'Not at all' and 7 being 'Completely'.

External Regulation Approach

26. I make efforts/get involved in my job to get other's approval (e.g. supervisor, colleagues, family, clients...).

Mark only one oval.

1 2 3 4 5 6 7

Not Completely/Entirely

27. I make efforts/get involved in my job because others will respect me more (e.g., supervisor, colleagues, family, clients...).

Mark only one oval.

1 2 3 4 5 6 7

Not Completely/Entirely

28. I make efforts/get involved in my job to avoid being criticized by others (e.g., supervisor, colleagues, family, clients...).

Mark only one oval.

1 2 3 4 5 6 7

Not Completely/Entirely

29. I make efforts/get involved in my job because others will reward me financially only if I put enough effort in my job (e.g., employer, supervisor...).

Mark only one oval.

1 2 3 4 5 6 7

Not Completely/Entirely

30. I make efforts/get involved in my job because others offer me greater job security if I put enough effort in my job (e.g., employer, supervisor...).

Mark only one oval.

1 2 3 4 5 6 7

Not Completely/Entirely

31. I make efforts/get involved in my job because I risk losing my job if I don't put enough effort in it.

Mark only one oval.

1 2 3 4 5 6 7

Not Completely/Entirely

Introjection Approach

32. I make efforts/get involved in my job because I have to prove to myself that I can.

Mark only one oval.

1 2 3 4 5 6 7

Not Completely/Entirely

33. I make efforts/get involved in my job because it makes me feel proud of myself.

Mark only one oval.

1 2 3 4 5 6 7
Not Completely/Entirely

34. I make efforts/get involved in my job because otherwise I will feel ashamed of myself.

Mark only one oval.

1 2 3 4 5 6 7
Not Completely/Entirely

35. I make efforts/get involved in my job because otherwise I will feel bad about myself.

Mark only one oval.

1 2 3 4 5 6 7
Not Completely/Entirely

Identified Motivation

36. I make efforts/get involved in my job because I personally consider it important to put efforts in this job.

Mark only one oval.

1 2 3 4 5 6 7
Not Completely/Entirely

37. I make efforts/get involved in my job because putting efforts in this job aligns with my personal values.

Mark only one oval.

1 2 3 4 5 6 7
Not Completely/Entirely

48. I try my hardest to perform well on my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

49. I strive as hard as I can to complete my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

50. I exert a lot of energy on my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

Emotional Engagement

51. I am enthusiastic about my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

52. I feel energetic at my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

53. I am interested in my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

54. I am proud of my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

55. I feel positive about my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

56. I am excited about my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

Cognitive Engagement

57. At work, my mind is focused on my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

58. At work, I pay a lot of attention to my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

59. At work, I focus a great deal of attention on my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

60. At work, I am absorbed by my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

61. At work, I concentrate on my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

62. At work, I devote a lot of attention to my job.

Mark only one oval.

1 2 3 4 5

Stro Strongly Agree

RESUME

Name Surname: YUN MI MI OO YUN MI MI OO

EDUCATION:

- **Bachelor:** Bachelor of Arts in Business Management | Oxford Brookes University | 2017-2021
- **Master:** MBA with Thesis (English) | Istanbul Gedik University | 2023 – Present

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- **Academix Studying Abroad Services** | International Education Consultant | October 2023 – Present
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