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Exploring the Impact of Information Overload and the Darkside of Digital Workplace on Employee Wellbeing: The Moderating Role of Peer Support

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DECLARATION

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ABSTRACT

This study investigates how the darkside of the digital workplace and information overload affect employee well-being, particularly with regard to the moderating role of peer support in the IT sector of Pakistan. The study's foundation is the Job Demands-Resources model analyzes how constant connectivity, technological pressure, and excessive information flow can influence employee's psychological and emotional state. A systematic survey was used to gather data of 185 IT professionals in Pakistan Convenience sampling was the method of choice, and SmartPLS 4 software had been used to analyze the data using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results reveal that both the darkside of the digital workplace and the information overload have detrimental effects on employee wellbeing. Although peer support is a moderator but it does not mitigate/reduce the stress caused by digital stressors. These results highlight the necessity for companies to adopt healthier digital practices, promote digital skills, and strengthen social support systems in the workplace. Overall, the study contributes to existing research by demonstrating how technology-related requirements continue to shape the modern working world and offers evidence-based recommendations for companies that want to protect the well-being of their employees in increasingly digitalized environments.

Keywords: Digital Workplace, Information Overload, Employee Wellbeing, Peer Support, Peer Support, Technostress, Burnout, Digital Fatigue Etc.

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CHAPTER 01 INTRODUCTION

1.1 Background

Information technology (IT) has become a critical part of today's global economy. It provides innovation, improves efficiency, and transforms businesses operations and how they compete. Over the past few decades, rapid advancements in computing, data analytics, artificial intelligence (AI), cloud services, and mobile technologies have transformed traditional industries and created new business models. The International Data Corporation (IDC, 2023) states that the global IT expenditure has exceeded to $5 trillion by 2023, which is highlighting the growing dependence of public and private organizations on IT systems and services (IDC, 2023). In developing countries particularly in regional parts of Asia and Africa, The IT industry is essential to the growth of the economy, employment opportunities, and global integration. However, these regions face continuous structural challenges like poor infrastructure, limited access to internet, and restrictive policies (World Bank, 2020).

The fast growth of the IT industry is mainly due to the increase in the need for digital transformation. Companies are heavily investing in technology to increase their effectiveness, for strengthening their customer relationships and to make more informed decisions. Furthermore, the increase of the digital innovations has intensified competition in multiple organization. It is forcing IT companies to continuously innovate and keep them informed about new and developing technological advances (Bharadwaj, El Sawy, Pavlou, & Venkatraman, 2013). While the IT sector continues to grow and offers great potential but it also presents numerous challenges. These challenges include increasing cybersecurity risks, skilled workers shortage, high staff turnover, and ethical issues associated with data protection and increasing automation (Fitzgerald, Kruschwitz, Bonnet, & Welch, 2014). In the last half-century, information technology (IT) has evolved significantly. Today, it involves far more than just pcs and smartphones but it also includes modern tools in factories, the automotive & aviation industries, and everyday household appliances. These technological advances have simplified everyday life in many ways while contributing to save time and cost across various industries (Berisha-Shaqiri , 2014).

Pakistan's IT industry has been crucial to the country's development and innovation for over 77 years and it is also an integral part of country's economic growth. The origins of IT sector of Pakistan date back to soon after the independence and mark the beginning of its technological growth. The end of 20th century was important because many milestones were

achieved such as the establishment of the “Pakistan Software Export Board” (PSEB) and the IT-related degree programs were introduced in universities which laid the foundation for the future innovations. These early days efforts laid the foundation for the industry’s expansion and success. In the following decades, rapid growth is experienced by the industry which increases global demand of IT services. Pakistani companies and freelancers started to excel in software development, IT consulting and business process outsourcing (BPO). This period of growth focused on expanding services and building a global reputation for quality and innovation (LinkedIn, 2024).

Today, Pakistan’s IT sector represents the progress in the digital age. The sector shows its dynamic and growing ecosystem. The important economic contributions are coming from increasing software exports and it creates of many jobs. The Pakistan’s government acknowledges the significance of the IT industry and has put in place a number of measures and initiatives to promote its growth and innovation. This includes technology parks, tax incentives and IT support and training education programs. These measures promote foster development and innovation, growth and attract for foreign investments (LinkedIn, 2024).

With the increased digitalization of the world, people are using of technology and their dependency on technology has increased drastically. This impacted every aspect of daily life, especially the workplace. While digitalization helps us increase our efficiency and simplify our personal and professional lives but it can also have negative side effects. Technostress is another term for stress associated to technology which is describes as the negative feelings associated with technology use. These consist of burnout, anxiety, anxiety, confusion, and feelings of depression. These stresses are mostly common in the workplace where the use of computers are high and digital platforms are the primary tool of doing work. As a usage technology increases, researchers are trying to understand its impact on health (Ingar, 2024).

Stressors like “hypoconnectivity, techno overload, digital workplace hassles, Fear of Missing Out and techno strain” have been identified as adverse consequences of the digital workplace (Marsh, Vallejos, & Spence, 2024). These stressors create emotional strain and mental exhaustion which is known as technological strain. The digital working environments and its darkside can impact employee wellbeing which requires organizational attention (Marsh, Vallejos, & Spence, 2024).

When someone receives more information than they can comprehend, it is known as information overload which can lead to decreased efficiency, stress, and difficulties taking

judgments (Eppler & Mengis, 2004). The digital era has intensely changed the working environment this offers numerous opportunities and difficulties for the wellbeing of worker. The effect of technology on mental health emphasizes companies to balance both welfare and efficiency (Retnowati, Kamal, Karyono, Anjanarko, & Mere, 2025). Employees have the chance to form workplace friendships and these friendships occur frequently. The employees who feel that they have good workplace friendships are the ones who are better able to handle stressful situations through positive coping behaviors such as creative, participatory, goal-oriented and influential coping behaviors (Potgieter, 2021).

According to Index of Work Trend a new cultural norm of Hybrid working, A new "worth it" equation applies to employees (Microsoft, 2022). People's expectations for their employment and the sacrifices they are prepared to make for them have changed. A poll revealed that 18% of respondents left their job in the past year, and 53% put their health and well-being first over their work. 52% of Millennials and Generation Z are probably going to think about changing careers or jobs in the coming years. Managers struggle to balance leadership and employee expectations. (Microsoft, 2022).

Workplaces these days effects wellbeing of the employees in a negative way their working powers are affected by these negative side effects which will leads to burnout, psychological and physical wellbeing. Colleagues and managers at work can help to reduce these effects by providing their supports which will eventually increase moral of the effected employees and productivity will be enhanced.

1.2 Significance of The Study

The values in this study are crucial for both HR practices and research purposes. The world has basically changed in the last few decades. The digital workspace has completely changed how businesses run, especially in the IT industry where quick advances in technology and the constant connectivity have grown to be essential components of daily life. In Pakistan, the IT industry has developed significantly over the past few years specially after the pandemic of Covid 19, as workplaces have been reshaped in term of communication and workloads. Adapting these digital tools has become new norms in Pakistan. However, the changes in IT also presents difficulties like overload of information and the darkside of digital workplaces, which negatively affect employee wellbeing. Information overload occurs when employees are overwhelmed by excessive or large amounts of information, which eventually wary them. The negative technology's effects on employees in digital workplaces, such as technostress caused

by constant connectivity, may lead to burnout, emotional strain, and physical and mental health problems. Support from colleagues, supervisors or managers within the organization can reduce the negative effects and improve employee wellbeing. In Pakistan IT sector where growth is fast paced, which often involves heavy workloads, constant digital communication and limited work-life balance, understanding these challenges are crucial. This study examines how information overload and the darkside of digital working environment affect employee wellbeing such as technostress, while also exploring peer support as moderating factor that helps in mitigating these effects.

1.3 Problem Statement

In recent years, Pakistan's IT industry has grown and organization's use of technology has increased. The speed at which digital technology is developing has transformed how businesses operate. The digital tools in workplace have become an important part of the organization in a modern world which provides advantages including higher productivity, improved communication and flexibility. However, they also pose difficulties. Employees who constantly process large amounts of information or work in highly digitized environments, may experience effect on their emotional and physical well-being. Information overload and the darkside of the digital workplace, such as technostress, workload and constant connectivity, can result in tension, exhaustion, fatigue, and burnout, ultimately diminishing the overall well-being of employees. To improve employee wellbeing, organizations can bring workplace to the lighter side by providing limited and manageable information and create a supportive working environment so it does not affect employee's wellbeing. Peer support within organization may also help mitigate or buffer the effects of both digital workplace and information overload. Such measures can assist companies in developing more sustainable and optimistic workplaces.

1.4 Research Question

The following are the study's research questions:

- What are the effects of the darkside of the digital workplace on employee wellbeing?
- What are the impacts of the information overload on employee wellbeing?
- Does peer support help mitigate/reduce the impact of information overload and the dark side of the digital workplace on employee wellbeing?

1.5 Research Objective

The research questions have identified the main objective of this study. The following are the objectives:

- To examine how the darkside of the digital workplace harms employee wellbeing.
- To examine the negative impact of information overload on employee wellbeing.
- To evaluate the moderating role of peer support in reducing the harmful effects of information overload and digital workplace stressors on employee wellbeing.

1.6 Purpose of the Study

This study's primary goal is to investigate how the growing use of digital technology in Pakistani workplaces in IT industry affects employee's overall wellbeing. While digital tools have improved speed, communication, and connectivity in the workplace, they also bring challenges with them like information overload, technostress, and burnout. In many Pakistani companies, they often focus on increasing productivity through technology, while their adverse effects on workers' physical and mental well-being like burnout, stress or exhaustion often go unnoticed. This present study explores these challenges and analyzes how peers support help, understand, encourages employee, and give guidance which can help reduce the adverse effects of the digital workplace. The main goals are not only to raise awareness but also to help Pakistani companies to develop healthier and more supportive digital workplaces where technology helps employees to grow and succeed rather than burn them out.

1.7 Thesis Structure

The main reason of this thesis aims to investigate the impact of information overload and the darkside of digital workplace on employee wellbeing and how peer support help mitigates the effect as a role of moderator. This study is distributed into 5 chapter with references and appendix.

Chapter 01: The background and introduction of the current study, industry analysis, problem description, research questions, and research objectives are all included in this chapter.

Chapter 2: A review of the literature is given in this chapter that describes the darkside of the digital workplace, information overload, peer support and employee wellbeing. The research framework is then presented which is emphasizing the moderating, dependent, and independent variables, along with study hypothesis.

Chapter 3: The methodology will be covered in this chapter that is used within the study. This chapter also includes details of nature of the study, research design and procedure, instruments and scales, unit of analysis, population and sampling, data collection tool etc.

Chapter 4: This chapter will discuss methods through which results are derived. It includes data analysis and finding through various dana analysis techniques.

Chapter 5: This chapter includes deep understanding of discussions, conclusions, and suggestions derived from the data and outcomes.

1.8 Chapter Summary

This chapter has covers various details about Information overload's effect's and the digital workplace & it's darkside on wellbeing of the employee (Marsh, Vallejos, & Spence, 2024). This chapter started with the explaining of the Information Technology industry in Pakistan along with information overload, digital workplace, employee's wellbeing and peer support. Moreover, this chapter explains the problem and objectives of this study. The study's significance, problem, research question, and purpose are also covered along with its structure.

CHAPTER 02: LITERATURE REVIEW

2.1 Introduction

This chapter offers a thorough assessment of the literature on peer support, employee well-being, information overload, and the darkside of the digital workplace, it gives a summary of the theoretical viewpoint on the subject being studied. Several researchers have already researched this topic and these are served as sources for the literature review chapter. The "Job Demands-Resources (JD-R) model" is being used in this research. Job demands and job resources are the two categories of the "Job Demands-Resources (JD-R) model" which divides the elements of work environment to explain worker performance and well-being. Job demands are physical or psychological aspects of the job that call for constant effort like high workload, poor environmental conditions. Excessively high demands can result in burnout or stress including emotional strain and overload. Aspects like "autonomy, social support, and feedback" are included in job resources with the aim of helping workers in achieving their goals, lowering stress levels, and fostering personal development (Bakker & Demerouti, 2007). This present study is using JDR model as the theoretical basis. Where information overload and working in digital workplace is job demand factor of the model and peer is the job resources factor of the model.

2.2 Darkside of Digital Workplace:

(Marsh, Vallejos, & Spence, 2022) offer a comprehensive and integrative analysis that examines the negative impacts of digital technologies in the modern working environment. While digital workplaces provide important benefits such as better communication, flexibility and access to information but they also present employees with few of psychological and emotional challenges. Technological stress, digital overload, anxiety, digital addiction, and eventually burnout is described as the darkside of digital work. Employees are deeply involved in digital networks and the use of multiple technologies lead to a complexed and harmful experiences sometimes. However, A holistic understanding of the digital workplace. This refers to all the digital technologies and practices that employees interact with throughout their workday. There five major stressors which are "digital overload, interruptions and distractions, invasion, monitoring and pressure and pace of digital work" (Marsh, Vallejos, & Spence, 2022). These are the factors that increases "emotional exhaustion, disrupt work life balance,

reduce job satisfaction" and in some cases leads toward long term mental health issues such as burnout (Marsh, Vallejos, & Spence, 2022).

The Job Demands-Resources (JDR) model is used in the study by (Hang, Hussain, Amin, & Abdullah, 2022) to investigate how the growing use of digital technologies in the workplace affects employee well-being. The research is conducted among bank employees in Pakistan and it identifies five key technological stressors such as "technological overload, technological invasion, technological complexity, technological insecurity, and technological uncertainty" that cause psychological distress and impair well-being (Hang, Hussain, Amin, & Abdullah, 2022). These stressors represent "excessive work pressure, the blurring of work-life balance, difficulties adapting to complex systems, and fear of job insecurity". The results this study confirm that technology related stressors have a substantial and detrimental effect on workers well-being. This supports the assumption that constant technological use can cause anxiety, burnout, and lower job satisfaction. However, the paper also highlights the proactive role of technology stress inhibitors such as promoting technical support, literacy skills and employee engagement, in helping people cope with technological change. When companies provide appropriate training and support, employees feel more competent and less threatened by digital tools, improving their mental well-being. Overall, this study shows that while technology increases efficiency, unmanaged digital demands can push employees to the darkside of the digital workplace, where overload or uncertainty impair their well-being, unless companies actively invest in supportive and stress-reducing measures (Hang, Hussain, Amin, & Abdullah, 2022).

In the article of (Marsh, Vallejos, & Spence, 2024) found that the negative effects of a digital workplace include stressors like "hypoconnectivity, techno overwhelms, digital workplace hassles, Fear of Missing Out, and techno strain" (Marsh, Vallejos, & Spence, 2024). Emotional strain and mental fatigue are the results of these stressors which is known as techno strain. The study's findings indicate that how the dark side of digital work environments can harm employee wellbeing and this will require organizational attention. The research article by (Bamel, Kumar, Lim, Bamel, & Meyer, 2022) explores the negative effects of workplace digitization particularly focusing on how it affects employees. Study finds that HR practice which "promote work-life balance, democratization of work and work technologies" and other practices that promote "employee empowerment, entrepreneurial behavior, reskilling for mastery and employee wellbeing" can help mitigate the issues of the dark side of digitalization (Bamel, Kumar, Lim, Bamel, & Meyer, 2022).

It has been proven that use of digital technology harms employee performance that will lead to conflict in both personal and professional settings. The one of disadvantage of digital technologies in the working environment is that it can lead to technological stress, which can reduce productivity (Tarafdar, Pullins, & Ragu-Nathan, 2015). Another study by (Tarafdar, Tu, Ragu-Nathan, & Ragu-Nathan, 2011) states that people experience "technostress" is due to rapid advancement in IS. Individuals experiences technostress due to "information overload, invasion of personal life, incapability to deal with uncertainty, complexity and insecurity" is because of change in technology (Tarafdar, Tu, Ragu-Nathan, & Ragu-Nathan, 2011). These technological stressors may lower commitment, creativity, productivity, and job satisfaction. the article also finds that women, experienced older experts and formal educated people experiences less technostress than men. People who are suffering from technostress experiences job dissatisfaction and faces difficulty in using IS for work related tasks. Key findings of the study include the factors that contribute in technostress because users are using IS. It was found that people who are experiencing technostress, they are dissatisfied with their jobs and they are having difficulties in using IS for their daily tasks (Tarafdar, Tu, Ragu-Nathan, & Ragu-Nathan, 2011).

This article by (Abdulkareem, Ishola, Bello, & Adejumo, 2024) examines the impact of excessive digital technology use on the wellbeing of Nigerian civil servants. The study used the Job Demands-Resources (JD-R) model. Civil servants were surveyed and found that intensive use of ICT has significantly increased digital overload which reduces autonomy and job satisfaction. The results imply that although digital tools can increase effectiveness but they also create constant connectivity, pressure, and cognitive stress that impair employees job satisfaction and sense of control. Work autonomy emerged as key mediating factor, Employees with greater decision-making freedom suffered less from digital overload. The study sheds light on a critical aspect of workplace digitalization and demonstrates that employee well-being suffers when technological demands exceeds the available resources.

The study by (Bahamondes-Rosado, Cerdá-Suárez, Dodero Ortiz de Zevallos, & Espinosa-Cristia, 2023) found that workers experienced "tech fatigue" during the COVID-19 lockdown due to lack of authority over their working hours and their lack of experience with remote working. This will be led to lower productivity and negative impacts on workplace health. High "tech stress" level is strongly influenced by age, professional or technical occupation. "Tech stress" is a disorder that must be recognized and treated to prevent negative health consequences. The study suggests that workplace programs are not enough to mitigate

the effects of technological stressors on burnout. Companies should develop stress management strategies for their employees and plan, monitor and organize technological overload and work intensity. A diverse work environment can help employees handle complex tasks and reduce "tech stress" (Bahamondes-Rosado, Cerdá-Suárez, Dodero Ortiz de Zevallos, & Espinosa-Cristia, 2023)

According to (Rasool, Warraich, & Sajid, 2022), employees can now work from anywhere at any time thanks to communication technologies and information technologies but due to this they also suffer from technological overload. The study identified several factors which contributes to tech overload that includes "stress, work or family conflicts, social media or email addiction and work overload and lost productivity". The findings show that the most effective approaches for overcoming technological overload are "self-efficacy, training, and time management" (Rasool, Warraich, & Sajid, 2022). To reduce technology overload, organizations should establish policies regarding internet disconnection at home and after work hours. The research of (Marsh, Vallejos, & Spence, 2024)found that there is dark side effect of the digital workplace on workers and it was explained that "17% of the variation in employee mental health and 39% of the variation in work exhaustion" (Marsh, Vallejos, & Spence, 2024). This is a clear-cut message for companies in this age of modern organizations, the idea of a digital working environment and digital work is critical for both employee output and wellbeing. Furthermore, learn how the organization's information ecosystem may cause stress and anxiety (Marsh et al., 2024).

(Ragu-Nathan, Tarafdar, & Ragu-Nathan , 2008)examine the psychological strains experienced by employees through the digital technology's usage in the workplace, this is referred as "technostress". This stress level rises when workforces are unable to manage the demands of constant changing in information and communication technologies (ICT). Technostress which are major components of the digital workplace environment. This article identifies five major sources of technostress: "techno-overload, techno-invasion, techno-complexity, techno-insecurity and techno-uncertainty" (Ragu-Nathan, Tarafdar, & Ragu-Nathan , 2008). These stressors are formed by pressure of doing "work fast, work-life boundaries, anxiety related to skills, fear of losing job and disruption due to continuous change in technology". Article collected data from 608 employees from multiple organizations through survey questionnaire and study proves that technostress has harmful impacts on job satisfaction and it reduces organization's "continuance and commitment". However, the study also shows that organizations can reduce these effects by implementing support programs such as training,

user involvement and technical assistance which is referred as technostress inhibitors. These practices will improve employee satisfaction and organizational loyalty.

2.3 Information Overload

(Marsh, Vallejos, & Spence, 2024) discussed how information overload contributes to stress and burnout in a digital working environment. The study surveyed 142 skilled workers to find their involvement with digital working and its negative effects, this includes “stress, overload, anxiety and Fear of Missing Out and these effects on their well-being such as exhaustion and mental health” (Marsh, Vallejos, & Spence, 2024). Information overload (IO) is considered as an important job demand which lead to poor mental health and emotional exhaustion of the employees. Information overload is amount of data employees are exposed to on daily bases like email, messaging platforms and communication tools which are constant sources of incoming flow of information (Marsh et al., 2024). While (Bawden & Robinson, 2020) describe the increasing amount of information and problem isn’t just the amount. It’s also about variety, complexity, choice, confusion and the damages caused by information. It’s notable that these factors appear in metaphors commonly used for information overload: “flood, deluge, smog, explosion”. Overload basically caused by the technology that bring us to much information which is consider as a flood that can’t be controlled. This study clearly explain that information overload may lead to problems like mental and physical health, which cause inefficiency whenever tasks are being undertaken and it is important not to underestimated it.

The study by (Shahrzadi, Mansouri, Alavi, & Shabani, 2024) information overload affects person’s ability to make decision, wellbeing and productivity, the study finds that the factors which are causing information overload are “personal factors, information characteristics, task parameters, organizational parameters and information technology parameters” (Shahrzadi, Mansouri, Alavi, & Shabani, 2024). These things have constant effects on the factors like “poor decision-making, decreased productivity and cognitive pressures”. The plans that can manage or overcome information overload is to learn skills and using filters which prioritizes information and technological tools (Shahrzadi, Mansouri, Alavi, & Shabani, 2024). (Berghel, 1997) Identifies information overload as a structural problem in this world which is digital world caused by the large amount of unfiltered and low-value information on the internet.

(Arnold, Goldschmitt, & Rigotti, 2023) systematically examines the involvement of information overload that is growing problem as a result of digitalization and the ICT usage. The solutions are characterized into five levels: “information, person, task and processes, organizational processes and information technology” (Arnold, Goldschmitt, & Rigotti, 2023). In information level, a well-designed dashboards and electronic records can help improve data clarity but evidence for reducing information overload is lacking. For individuals, the importance of training in digital learning, time management and coping skills as well as emphasized real-world guidelines for using email and the internet (Arnold, Goldschmitt, & Rigotti, 2023).

Modern society is flooded with information, leading to mental exhaustion and burnout. To stay productive and focused, it’s important to distinguish between useful and irrelevant information. This constant flood of information can drain our mental energy and cause a lack of concentration. Information overload has become common worldwide since the growth of information and technology. With the advancement in technology, the flow of information is faster which make processing and decision making more difficult than ever. Modern workplaces are surely overwhelmed by vast volumes of info from several sources. The problem is further worsened by modern globalization trends. The primary causes of information overload include “newspapers, television, wireless communication devices and the Internet” (Stanley, 2021).

According to (Hoq, 2014), Information overload is generally mentioned as an excessive amount of info which is a major concern for workers, scholars and supervisors/managers. Since the beginning of technological advancements, the rate at which information is produced has rapidly increased. As a result, People are consequently facing “information glut” which is making it difficult to locate the appropriate information which they need in a timely and convenient manner from a variety of “print, electronic, and online sources” (Hoq, 2014). The study looks at the main reasons why people are overloaded with information in the twenty-first century and offers recommendations. It highlights the importance of joint collaboration between scientists, computer scientists, and information professionals in developing methods and Resources to lessen the impact of information overload (Hoq, 2014).

The study by (Misra & Stokols, 2012) discussed about perceived information overload, especially in this digital era. People experience information overload when they are stressed or overwhelmed by numerous numbers of information and communication data from “cyber-

based and place-based sources of stimulation" (Misra & Stokols, 2012). "Cyber-based source" of stimulations refers to the extreme size of digital communications, such as emails, texts, social media updates and digital notifications, which will create pressure to do multitask and respond quickly that can lead to not responding to important messages because a lot of information is missing. This effects persons physical and emotional wellbeing (Misra & Stokols, 2012).

(Karr-Wisniewski & Lu, 2010) explore how extreme usage of information technology in the workplace/office can negatively affect productivity through the phenomenon of technology overload. when additional technology tools are used in workplace it begins to mass out the persons productivity instead of enhancing it. Information overload is a condition where a People receive more information than their limited cognitive capacity can efficiently handle. Information overload was part of the three factors of technology overload along with two other which are "system feature overload and communication overload", these factors causes loss in productivity. the surveys and qualitative analysis of knowledges workers, the study founded that "55% of respondents experienced issues related to information overload, 47% of the respondents reported system feature overload while 86% of respondents reported issues involving communication overload" (Karr-Wisniewski & Lu, 2010). Respondents revealed that when they have large amount of information they feel overwhelmed and having difficulties focusing on work due to constant exposure to irrelevant or excessive information (Karr-Wisniewski & Lu, 2010).

People experience information overload when they are unable to comprehend the wide volume of information. effectively especially in a limited period of time. This disparity in this information processing exceed the available processing capacity which can create confusion, stress, difficulties in decision making and decline in the performance (Eppler & Mengis, 2004). Technological advancement like email and internet platforms have intensified the problem by constant increasing of the flow and accessibility of information. A reverse u-shaped relationship between performance and information quantity. Performance improves with more information only up to a certain point, after which it declines (Eppler & Mengis, 2004). The study Identify five main causes of information overload: (1) "Personal factors" (2) "Information characteristics", (3) "Task and process parameters", (4) "organizational structures" and (5) "information technologies" (Eppler & Mengis, 2004). Overload negatively affects decision-making by increasing time pressure, reducing the ability to concentrate, making it difficult prioritized important work and sometimes this leads to decision paralysis.

Countermeasures recommended in this research include enhancing the information's quality and presentation, provide training people to manage time and information betterment, restructuring of organizational processes and use smart information systems to filter and prioritize content (Eppler & Mengis, 2004).

2.4 Employee Wellbeing:

(Chakraborty & Mahanta, 2019), they consider employee well-being an essential component of modern corporate strategy, especially when people are working long hours. They argue that the work environment directly impacts employee's overall well-being and stress is one of its most serious negative consequences. High levels of stress not only impair employees physical and emotional well-being, high levels of stress can lower business productivity (Chakraborty & Mahanta, 2019). Work is defined by (Ganster & Rosen, 2013) According to them, stress is the process by which psychological experiences and expectations at work (stressors) result in both short-term (strain) and long-term changes in mental and physical health (Ganster & Rosen, 2013).

According to (Retnowati, Kamal, Karyono, Anjanarko, & Mere, 2025) the digital age has drastically changed the workplace this presents opportunities and challenges for employee wellbeing. This paper examines that how technology impacts mental health and emphasize the importance for organizations to achieve a balance between well-being and productivity. It addresses the topics such as "the challenges of remote working, digital overload, and the importance of organizational support" (Retnowati, Kamal, Karyono, Anjanarko, & Mere, 2025). Companies can provide encouragement, supportive and more healthier working environments. The study's finds the weight of initiative taking procedure for employee welfare by implementing factors like "flexible working hours, digital well-being initiatives and mental health services" (Retnowati, Kamal, Karyono, Anjanarko, & Mere, 2025).

The study by (Marsh, Vallejos, & Spence, 2024) investigate the "stress, overload, anxiety and fear of missing out" has impacted workers with exhaustion and mental health which they experienced while working in the digital work environment (Marsh, Vallejos, & Spence, 2024). Similarly, in another study by (Marsh, Vallejos, & Spence, 2024), identified stressors which have negative effects on employee in digital work place. The stressors result in emotional strain and mental exhaustion which is known as techno strain. The findings highlight that how the digital work environments and its dark side can harm employee wellbeing (Marsh, Vallejos, & Spence, 2024).

Due to the pandemic of COVID-19, telecommuting and remote work has become a major global challenge. Throughout the lockdown numerous companies have opted to work remotely. As digital technology has grown, the importance of remote working has becoming more visible and it also presents new challenges and raises questions about employee well-being and health. The remote work was adopted during the pandemic, it is unprecedented and emphasizes the necessity of giving employee well-being extra consideration (Xu, 2023). According to the study's hypothesis, teleworkers well-being is negatively impacted by digital technology since prolonged usage of electronic devices in a digital office setting can result in mental and physical illnesses (Xu, 2023). The online survey was filled out by 356 technical staff of major Chinese Internet companies. According to the survey's findings, over 58% of those surveyed said they use electronic devices over seven times a day and 54% use them for more than seven hours a day (Xu, 2023). More than 60% suffer from health problems, 69% from loneliness and 41% from anxiety and depression. Social problems are widespread: 52% suffer from work-related stress and 48% struggle with social difficulties. The organization's performance review system is deemed unsatisfactory by 26% of respondents and its support for employee well-being. Overall, 53% are dissatisfied with their jobs. The survey suggests that companies need to do more to promote and support employee performance (Xu, 2023).

Employee well-being is a constant concern for a company to improve its performance. It can be divided into financial, social, emotional, and physical well-being. Out of these four factors, physical and emotional well-being are considered crucial factors for employee performance, as they are related directly to the work environment and the people who are around them. With rapid technological development, the work environment is becoming increasingly challenging, for making it easier for both employees and employers to meet their expectations (Umasankar, Boopathy, Padmavathy, Fukey, & Singh, 2022). Technology is becoming a crucial and critical component of Industry 4.0 as computers interacts with and control machines. It is wrong to claim that technology controls today's global industrial sector. Employee wellbeing requires a new perspective since their work environment has becomes digitalized, especially in the IT and ITES sectors. Workers are more connected to devices than to machineries in the Industrial Revolution 4.0 (Umasankar, Boopathy, Padmavathy, Fukey, & Singh, 2022). The primary objective is to examine the impact of digital detox on employee's emotional and physical well-being and to determine its influence on the achievement of employee goals. The study identified seven strategies that IT employees can use to digitally detox their digital workplace such as "No-tech meetings, One-screen limit, Screen breaks,

Tech-free window, No notifications, Digital diet and Buddy system" (Umasankar, Boopathy, Padmavathy, Fukey, & Singh, 2022).

In study of (Rasool, Wang, Tang, Saeed, & Iqbal, 2021) gathered information from 301 workers of Chinese SMEs using a quantitative research technique. The study outcomes confirm that the dangerous work environment exert harmful impact and which ultimately lower employee engagement. Furthermore, the study further indicates that employee well-being and company's support has a major and crucial role in shaping toxic working conditions and employee engagement. The study's findings are as follows: First, There is an obvious connection between work engagement and a dangerous work conditions that confirms that people working in toxic environments spread negative attitudes among their colleagues (Rasool, Wang, Tang, Saeed, & Iqbal, 2021). Employees can suffer from unnecessary stress, burnout, hopelessness, and anxiety brought on by the unfavorable feelings connected to a toxic workplace, including bullying, harassment, and exclusion. Second, employees' actions are influenced by their well-being, which increases their commitment to their work and the organization. Third, employees who receive organizational support feel more committed to their work and the company (Rasool, Wang, Tang, Saeed, & Iqbal, 2021).

(Kashyap, Joseph, & Deshmukh, 2016) states that Technological advancements have also led to a 24/7 work environment with increased usage of gadgets including computers, tablets, and smartphones which allow people to stay connected via email throughout the day. This 24/7 intervention, due to the global work environment, as well as high workloads and time pressures, affects employees' overall wellbeing and health. Work-life balance initiatives can be used by organizations. Programs like "flexible work arrangements which involves working part time, flexible working hours and telecommuting/remote work options". They are now considered useful tools for employees who want to achieve a stability between their private and professional lives (Kashyap, Joseph, & Deshmukh, 2016).

(Ernst Kossek, Kalliath, & Kalliath, 2012)argue that workers are increasingly exposed to dangerous working conditions, constant availability and unusual working hours which may result in elevated stress and unstable employment. This constant pressure negatively impacts employee's well-being and makes it challenging for them to keep a work-life balance (Ernst Kossek, Kalliath, & Kalliath, 2012).

The study by (Page & Vella-Brodrick, 2009) examines employee wellbeing in what, why and how. The concept of mental health was examined to create a model of employee well-

being. Started with “what” of the employee wellbeing. An employee’s wellbeing is consisting of three main components: (1) “psychological well-being” that represent “self-acceptance, positive relationships with others, mastery of the environment, autonomy, meaning in life, and personal growth” 2) “workplace wellbeing” which represents “job satisfaction with work-related affects” and 3) “subjective wellbeing” that represents “life satisfaction with dispositional affects” (Page & Vella-Brodrick, 2009). The study then examined the “why” of the employee’s wellbeing and highlighted its importance for organizations. Research supports the view that Workplace wellness is an essential part of organizational well-being and welfare since it is strongly linked to productivity and employee turnover. The final section examines the “how” of employee wellbeing and suggests that “strengths-based”, strategy of continuous development is reliable for improving well-being. By integrating all three components into a model which will enhance employee wellbeing and this will be beneficial for both organization and employee (Page & Vella-Brodrick, 2009).

According to (Maslach, Schaufeli, & Leiter, 2001), results have shown that job burnout is conceptualized as a psychological syndrome caused by persistent interpersonal stresses at work. The three main elements of this reaction are overwhelming “exhaustion, cynicism and detachment” from work and feelings of ineffectiveness and lack of performance (Maslach, Schaufeli, & Leiter, Job burnout., 2001). The exhaustion is the element that represent the individual stress aspect of burnout. It refers to the experience of feeling emotionally overwhelmed and physical fatigues. The interpersonal aspects of burnout syndrome are “cynicism or depersonalization”. It refers to a cynical, insensitive, or excessively disconnected reaction to several dimensions of work. The self-evaluative is the aspect of burnout syndrome shows itself in effectiveness or reduced performance. It reflects feelings of ineffectiveness accompanied by reduced performance and productivity at work. exhaustion and Cynicism usually result from workplace circumstances including social conflicts and overload. (Maslach, Schaufeli, & Leiter, 2001).

2.5 Peer Support

The article by (Fadhira & Suyono, 2024) highlights how support from coworkers plays an important part in shaping worker welfare, job satisfaction, and retention within organizations. The systematic review was drawn from published research studies between years 2013 to 2023, the research paper shows that coworker support, both emotional supports such as empathy, encouragement, and listening and instrumental support such as practical help

and resources helps employees how to cope with stress, manage workloads, and remain engaged at work. The research also emphasizes on theoretical foundations such as The Job Demands-Resources (JD-R) model and the Conservation of Resources (COR) theory demonstrate how coworker help can serve as a resource to mitigate the adverse impacts of high job demands (Fadhira & Suyono, 2024).

The research article by (Lanzl, 2023) analyze the connection between four dimensions of social support "supervisor support, coworker support, sense of community at work, and family support" and their relationship with technostress generating factors (Lanzl, 2023). This study also proves that social support can serve as a useful buffer against factors that generate technostress (Lanzl, 2023). However, it is important to differentiate between the different aspects of social support. The main goal is to determine whether social support can effectively reduce technostress. With greater social support, employees feel that they can count on people help whenever they face difficulties with digital technologies this make them feel less threatened. The support from supervisor, employees can express their concern to their supervisor an get help from them (Lanzl, 2023).

(Potgieter, 2021) aim was to determine whether workplace friendships, career adaptability and personal resources for healthy coping behaviors are highly related. This study proves that people who have the opportunity to form and regularly maintain Friendships at work can successfully adjust to changes in the workplace, including technological advances and the challenges of Industry 4.0. The results also show that workers who feel they maintain strong workplace friendships are better able to use more positive coping mechanisms including "innovative, collaborative, goal-oriented, and influential" for dealing with demanding situations at workplace. The results also showed that employees with high career flexibility utilize constructive coping strategies to handle stressful situations at work. (Potgieter, 2021).

The research article by (Darke, Mensah, Asamoah Antwi, & Swanzy-Krah, 2024) highlighted how does co-worker support plays a crucial role in determining employee commitment and well-being during COVID-19 pandemic crisis. The article uses Social Exchange Theory, which shows that both instrumental support like help with tasks and resources and emotional support like empathy, encouragement, and care can increase worker's affective commitment through job satisfaction's mediating function. The results show that workers who feel encouraged by their peers not only have better job satisfaction but also become more devoted and loyal to their employer. Overall, The study emphasizes the

importance of maintaining supportive relations with coworkers as the strategies for maintaining employee well-being and preventing disengagement during times of uncertainty (Darke, Mensah, Asamoah Antwi, & Swanzy-Krah, 2024).

According to (Yeo, Fortuna, Lansford, & Rudolph , 2025), the study examined how the mental and physical well-being of healthy individuals is affected by digital peer support system affected. The findings demonstrated that digital peer support interventions limited effects for physical health, they had a positive effect on mental health. Furthermore, informal, natural peer support interventions involves individuals with comparable physical and psychological health conditions are found to be the most promising approach for improving psychological health. The scale of the effect was similar to those of "online counselors, psychologists and therapists providing professional support". While digital peer support systems were more successful in enhancing mental health in Eastern nations than in Western ones, but they were also more successful in enhancing physical health in Western nations. (Yeo, Fortuna, Lansford, & Rudolph , 2025).

The research by (Passey, Brown, Hammerback, Harris, & Hannon, 2018) emphasize on employee wellness program through manager support. The two primary categories found in the analysis serve as the foundation of the study. Beliefs and attitudes, training, leadership responsibilities, and management structure comprise the first category of elements pertaining to manager support. Organizational culture, employee perceptions of support, and employee conduct comprise the second category, which is the impact of management support. According to the study, several elements that shape managers support is their "beliefs and attitudes toward health programs and employee health, training on health-related topics, senior leadership, expected roles within the organization and the management structure" in the workplace (Passey, Brown, Hammerback, Harris, & Hannon, 2018). In addition, t was discovered that the degree of visible and tangible support by leaders which can significantly shape organizational culture (Passey, Brown, Hammerback, Harris, & Hannon, 2018).

(Mead & MacNeil , 2006) states that Peer support is considered as the fact that individuals with similar experiences can connect better with each other and it can provide more reliable empathy and reassurance. Additionally, people with similar experiences often share tips and strategies that experts may not be aware of or even offer. A person who shares social or demographic characteristics with another is called a "peer". In a respectful relationship, "support" refers to the deep compassion, encouragement, and help that people of similar

backgrounds can offer each other. (Darby Penney, 2018). However, (Riessman, 1990) explains that peer support is the process when individuals collaborate as equal to give and receive assistance from their common experiences (Riessman, 1990).

2.6 Research Hypothesis

- **H1:** The dark side of digital workplace has negative effects on employee wellbeing.
- **H2:** The information overload has negative effects on employee wellbeing.
- **H3:** Peer support moderates the relationship between the dark side of the digital workplace and employee well-being, such that higher peer support reduces the negative impact of the dark side of digital workplace.
- **H4:** Peer support moderates the relationship between information overload and employee well-being, such that higher peer support reduces the negative impact of information overload.

2.7 Research Framework

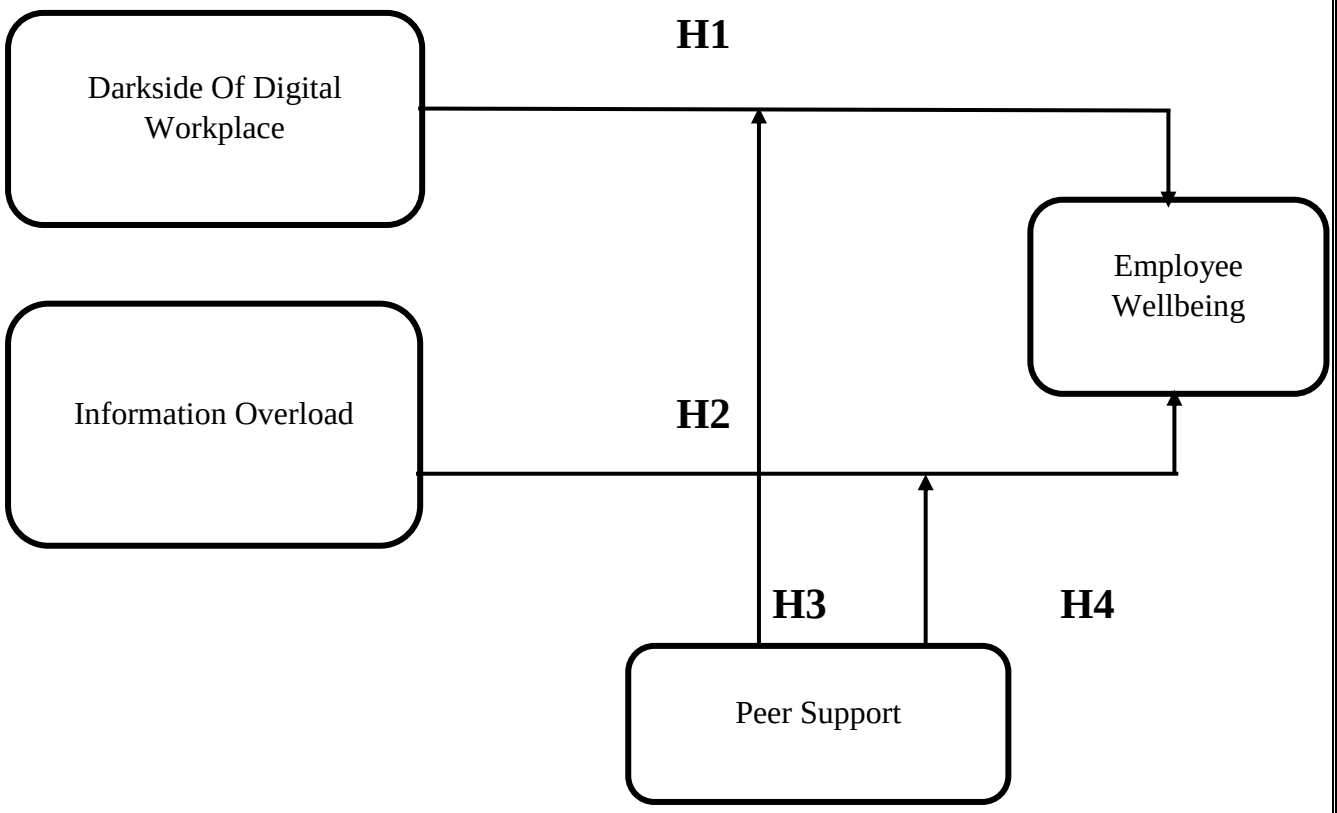

Figure 1 Research Framework

This theoretical framework consists of 2 independent variables, 1 moderator variable and 1 dependent variables. Darkside of digital workplace and information overload has been used as the independent variable and peer support has been used as moderator variable. Whereas, employee wellbeing has been used as dependent variables. This framework suggests employee wellbeing is greatly impacted by the dark side of the digital workplace and information overload, and peer support can help lessen these consequences (Marsh, Vallejos, & Spence, 2022).

2.8 Operational Definitions

The Darkside of the Digital Workplace

The dark side of the digital workplace refers to the adverse emotional, social, and physical consequences that arise from the constant digital technology's usage at work, including technostress, increased surveillance, and blurred work–life boundaries (Marsh, Vallejos, & Spence, 2022).

Information Overload

People experience information overload when they are unable to efficiently handle the large amount of information, particularly in a short amount of time. This leads to stress, reduced productivity, and difficulty in making decisions (Eppler & Mengis, 2004).

Employee Well-Being

Well-being of employee encompasses the overall mental, physical, and emotional health of employees, which is shaped by their working environment, job demands, and the level of organizational support they receive (Grant, Christianson , & Price, 2007).

Peer Support

Peer support is the process through which individuals come together as equals to give and receive guidance and support, drawing on the knowledge gained from shared experiences (Riessman, 1990).

2.9 Chapter Summary

The theoretical literature on the subject of this study was thoroughly examined in this chapter. Relevant literature on information overload, Darkside of the digital workplace, employee wellbeing, and peer support was considered. Additionally, a theoretical framework based on the variables under study is provided in this chapter. The graphic representation of the theoretical framework provides a visual context for the study which clarifies how the independent, dependent, and moderating factors relate to one another.

CHAPTER 03: METHODOLOGY

3.1 Introduction

This chapter offers techniques for evaluating research variables which are the Darkside of digital workplace, Information overload, employee wellbeing and peer support. Methodology is covered in this chapter which explains the research methods and techniques applied for analyzing and gathering of the data. It also includes nature of the study, research procedure, instruments and scales, population and sampling, data collection tools etc. in detail.

3.2 Nature of The Study

The current study examines the cause-and-effect relationship between two or more variables. (Sekaran, 2003). The study is expressing the effect on employee wellbeing caused by darkside of digital work place and information overload and moderating variable which is peer support that might changes this cause and effect relationships. Most of the studies uses quantitative researches so the present study also uses quantitate approach.

3.3 Research Design

In a research, a "cross-sectional design collects data from population at a single point in time" or over small period of time such as in few days, weeks or months (Sekaran, 2003). The research design used in this study is cross-sectional because it will allow rapid data collection and statistical tests such as the measurement model's and the structural model's validity and reliability which is appropriate for hypothesis-driven research since it is tested to determine the direction and strength of the relationships between the variables within the tight deadlines.

3.4 Research Philosophy

The research Philosophy used in this study is positivism. According to positivism, reality is objective and measurable by observable and quantitative evidence. The study's main objective is to use a quantitative approach to explore the theoretical relationships between the demands of the digital workplace, information overload, peer support, and employee wellbeing. Since a structured questionnaire was used to gather the data and statistical techniques were used for analysis, positivism is an appropriate philosophical basis for this study.

3.5 Research Approach

This study uses a deductive research Approach based on generally accepted theories to explore the possible relationships between information overload, peer support, employee wellbeing, and the demands of the digital workplace. A systematic questionnaire was used to gather quantitative data for the empirical testing of the hypotheses, which were established based on existing research.

3.6 Research Procedure

Throughout the study, the researcher experiences a structured but repetitive mental and physical process to ensure methodological accuracy. The present research process begins with problem identification, where critical thinking and literature review helps to refine the study goal and question, which are followed by the selection of the design which is cross sectional for this present study. Based on the study's aims and nature which is causal. The researcher will then move on to data collection which will include logistical planning such as securing participant, survey design with ethical considerations. This phase tests mental resilience by addressing unexpected problems such as low response rates or missing data. Once the data are collected then quantitative analysis requires focus on analyzing data, performing statistical tests and interpretation of results that might often requires several repetitions to ensure accuracy. Then the last stage is writing phase which integrate the findings with theory and combines logical thinking with clear communication.

3.7 Instruments and Scales

Despite the wide range of data collection techniques accessible, the current study is using quantitative research approach which includes structured questionnaire, this involves question items about all variables darkside of digital workplace, information overload, employee wellbeing and peer support. All questions items will be evaluated using a Likert scale 5-point, where 1 represents strongly disagree and 5 represents strongly agree. The question items for each variable are adopted from already builds scales. For the independent variable darkside of digital workplace items are adopted from developed scale, 5 items are obtained from technology overload scale from (Ragu-Nathan, Tarafdar, & Ragu-Nathan , 2008) study, and independent variable information overload 6 items are adopted from (Williamson, Eaker, & Lounsbury, 2012). For dependent variable employee wellbeing question items is gathered from two scales. 4 items are from (Maslach, Jackson, & Leiter, Maslach Burnout Inventory ,

1997), and 3 items are from Oldenburg burnout inventory, all items for this variable are reverse coded. For last moderating variable question items are gathered 5 items are from the thesis Burns (2016).

3.8 Unit of Analysis

The "unit of analysis" of this study is individual which is used in current study which comprises of employees associated with the organization in IT sector that includes large, medium and small firms in Islamabad and Rawalpindi in Pakistan.

3.9 Population and Sampling

3.9.1 Populations parameters

The parameters of the population for this present study is centered on the IT industry in Pakistan. The primary population consists of registered IT firms, software houses and tech startups operating within Islamabad and Rawalpindi. It specifically includes companies' members with "Pakistan Software Houses Association" (PASHA) as these organizations maintain the formal records of active IT businesses with support from IT exports. Pakistan's IT sector has emerged as one of the nation's fastest-growing industries and it makes a significant contribution to the economy valued at approximately $3.2 billion in fiscal year 2023/24 (State Bank of Pakistan).

3.9.2 Target Population

Middle management and lower management employees are the study's target population who are working in the information technology (IT) sector in Islamabad and Rawalpindi. These professionals play an essential role in operational and strategic implementation of IT in organizations and act as a critical link between senior management and junior employees. This study focuses on employees working in IT companies and software houses in Islamabad and Rawalpindi in Pakistan. These cities are the hub to large number of IT companies and are crucial to the country's growing technology ecosystem like System limited, NETSOL technology, Teradata, S&P Global and Zones IT solutions.

3.9.3 Total Population

The study population comprises information technology (IT) companies membered with the Pakistan Software Houses Association (PASHA). According to PASHA members directory, there are approximately 700 membered IT companies in Pakistan. Of these,

approximately 150 are located in Islamabad and 50 located in Rawalpindi. These PASHA membered IT companies thus constitute the target group of this study.

3.9.4 Sampling Technique

Convenience sampling involves collecting data from people who are easy to reach or readily available, rather than carefully selecting a random or representative group (Sekaran, 2003). (Marsh, Vallejos, & Spence, 2024) used Convenience sampling in their study which was a lot like the present study. So, this study also uses convenience sampling for quickly and efficiently data collection from easy and accessible participants. Since this research is focusing on the consequences of digital workplace and the impact of information overload on employee well-being, it is appropriate to obtain responses from easily accessible individuals such as managers, supervisors, and employees. To minimize bias will ensure that sample includes a wide range of people in the available group.

3.9.5 Sample Size

Several researchers shared their insights about how to choose the sample size. The sample size of 30 to 500 is completely suitable for conducting good research (Sekaran, 2003). Similarly, according to Kline (2005), a sample size of more than 200 is seen as large, a sample size between 100 and 200 is regarded as medium, and a sample size of less than small is regarded as small. An effective research requires a sufficient sample size. If sample is insufficient, the reliability and the veracity of the information gathered from responders cannot be deemed satisfactory. In this study, a sample size of 150 to 190 respondents associated with companies with digital environment in IT sector. Total number of respondence are 185 for this study for better results.

3.10 Data Collection Tool

The questionnaire will be carefully created and designed for simplicity to ensure a simple and straightforward response process and it enable participants to provide reliable answers during data collection. Questionnaire is formed in English language with 23 item questions. This simplification of the questionnaire automatically eliminates factors such as inaccuracies and explanations. An electronic Google Forms was used to collect data through structured questionnaire which will be distributed through Emails and messages.

3.11 Data Analysis Techniques:

The data analysis procedure starts once data collecting is finished. The data was analyzed through various tests to complete the analysis process. For this present study, Using SmartPLS 4 software, the partial least square structural equation modeling (PLS-SEM) method was used to evaluate the data. This strategy was selected because it allows us to explore and recognize the causal relationship among multiple variables in a single model, which fits the purpose of this research. PLS-SEM is particularly is useful when studying complex model. PLS-SEM provided a suitable approach to test how information overload and the dark side of the digital workplace influence employee well-being, while also examining the moderating role of peer support. The PLS-SEM allows testing of the measurement model to guarantee construct validity and reliability, outer loadings, discriminant validity and multicollinearity, and the structural model to assess the importance and strength of hypothesized paths by path coefficient (P value and β), coefficient of determinants (R^2) and effect size (F^2). This method proved to be suitable for human resource management study, as it allowed for a deep understanding.

3.12 Research Onion

Onion research provides a systematic framework for research planning, leading from broad philosophical assumptions to specific techniques for data collection and analysis (Saunders , Lewis, & Thornhill, 2019). This study follows all layers of the research onion, as explained below.

3.12.1 Research Philosophy

This study follows a positivism research approach, which assumes that reality is objective and measurable. This approach emphasizes the testing of hypotheses and the consideration of observable facts. It is particularly well suited for the use of quantitative data and statistical analyses.

3.12.2 Research Approach

A deductive research approach is used, starting from established theories. Hypotheses were developed based on the Job Demand–Resource Model. These hypotheses were tested using empirical data.

3.12.3 Methodological Choice

The study follows a quantitative research methodology. Numerical data were collected to examine relationships among variables. This approach allows objective analysis and generalization of results.

3.12.4 Research Strategy

A survey strategy was employed using a structured questionnaire. 5 points Likert scale items were adapted from previous studies. This strategy enables efficient data collection from a large sample.

3.12.5 Time Horizon

The research adopts a cross-sectional time horizon. Data were collected at a single point in time. This design captures employees current perceptions and experiences.

3.12.6 Nature of Study

The study is causal in nature. It examines cause and effect relationships between variables. The focus is on how digital demands influence employee well-being.

3.12.7 Data Collection

Primary data were used in this study. Data were collected directly from IT sector employees. This ensures relevance and accuracy of information.

3.12.8 Sampling Technique

A convenience sampling technique was applied. Participants were selected based on accessibility and willingness. This method is appropriate for organizational research.

3.12.9 Data Analysis

Data were analyzed using PLS-SEM through SmartPLS 4 software. This technique is suitable for testing complex models. It also supports moderation analysis and theory testing.

3.13 Limitation of Methodology

Since the study will gather responses at a one point in time, it cannot be considered for temporal changes or long-term effects that a longitudinal study might reveal. The use of convenience sampling can introduce potential selection bias. Using other methods like random and snowball method might give unbiased responses. Structured electronic questionnaires

might delay the responding which can affect research in late submission this can be reduced by using physical questionnaires which can be filled in time without any delays.

3.14 Chapter Summary

The Methodology chapter explains the nature, procedure, and the research's design. Causal analysis is used in the study and quantitative methods to analyze the research topic exploring the impact of information overload and the darkside of digital workplace on employee wellbeing: moderating role of peer support. A questionnaire was used to gather data among middle and lower-level management in IT industry. The sample of 185 respondents was selected through convenience sampling. Instruments such as the questionnaire were used to test validity and reliability

CHAPTER 4: DATA FINDINGS AND ANALYSIS

4.1 Introduction

The presentation and analysis of the study data outcomes are the main topics of this chapter. The main objective is to investigate how information overload and the negative features of the digital work setting affect worker well-being and how peer support can mitigate these effects. The analysis is based on data collected through electronic questionnaires through google forms and processed using SmartPLS 4. First, to give a broad picture of the sample, the participants' demographics are described. Subsequently, the reliability and validity of the measurement model are tested to guarantee the accuracy and consistency of the data used in the analysis by PLS-SEM algorithm. After validating the measurement model, to determine the direction and strength of the relationships between the variables, the structural model is assessed by bootstrapping. The results of this chapter form the basis for understanding how the hypotheses formulated align with the real-world data and provide a foundation for the discussions in the following chapter.

4.2 Descriptive frequencies

Researcher divided the collected data into different categories for easy interpretation. The data is composed of numerous groups, including the following: The gender, age, education and work experience. The data was summarized using descriptive statistics like percentages and frequencies.

Table 1 Descriptive frequencies

Demographic	Categories	Frequencies	Percentage	Cumulative Percentage
Gender	Male	122	65.9	65.9
	Female	63	34.1	100.0
Age	21 - 30 years	105	56.8	56.8
	31 - 40 years	72	38.9	95.7
	41 - 50 years	8	4.3	100.0
	Above 50 years	0	0	100.0

Education	Matric	0	0	0
	Intermediate	0	0	0
	Bachelors	98	53	53.0
	Masters	85	45.9	98.9
	PhD	2	1.1	100.0
Experience	below 1 years	36	19.5	19.5
	1- 3 year	51	27.6	47.0
	4 - 5 years	34	18.4	65.4
	5 and above	64	34.6	100.0

The demographic results show that out of the total respondents, 122 respondents, or 65.9% of the sample, were men. 34.1% or 63 of the remaining responders were female. This suggests that men predominate in the sample. The age distribution demonstrates that 105, or 56.8%, were between the ages of 21 and 30, according to the age distribution. An additional 72 respondents, or 38.9%, were between the ages of 31 and 40. No responders were older than fifty, and just 8 people, or 4.3%, were between the ages of 41 and 50. This pattern indicates that younger adults make up the majority of the sample. In terms of education, 98 respondents, or 53% of the sample, had a bachelor's degree. A master's degree was reported by 85 participants, or 45.9% of the total. Just 2 responders, or 1.1% of the total, had earned a PhD. The matric and intermediate categories did not include any of the participants. This implies that the sample has a high level of education. Work experience was distributed across several levels. 36 respondents, or 19.5% of the sample, had less than one year of experience. 27.6%, or 51 participants, had 1 to 3 years of experience. 34 respondents, or 18.4% of the sample, said they had 4 to 5 years of experience. 64 respondents, or 34.6% of the total, had 5 or more years of professional experience. This shows a reasonable mix of early career and experienced employees within the sample. Overall, the demographic profile reflects a young, well-qualified group of respondents with diverse experience levels.

4.3 Measurement Model

4.3.1 Outer Loading

Table 2 Outer Loading

	DSDW	EWB	IO	PS	PS x IO	PS x DSDW
DSDW1	0.882					
DSDW2	0.909					
DSDW3	0.884					
DSDW4	0.854					
DSDW5	0.856					
EWB1		0.847				
EWB2		0.881				
EWB3		0.854				
EWB4		0.824				
EWB5		0.704				
EWB6		0.845				
EWB7		0.839				
IO1			0.888			
IO2			0.851			
IO3			0.866			
IO4			0.882			
IO5			0.768			
IO6			0.899			
PS1				0.784		
PS2				0.751		
PS3				0.921		
PS4				0.896		
PS5				0.782		
PS x DSDW						1
PS x IO					1	

The reliability of each indicator was evaluated by examining its outer loadings on the corresponding latent construct. According to (Hair, Hult, Ringle, & Sarstedt, 2022)standardized loadings of 0.70 or higher are considered to be satisfactory because they show that the item accounts for nearly half of the variance of its latent construct. (Hair, Hult, Ringle, & Sarstedt, 2022). In this study, all constructs show strong item reliability. For the Darkside of digital workplace (DSDW), the range of outer loadings are from 0.854 to 0.909 which confirms that each indicator contributed substantially to the contract measurement. Likewise, all seven item of employee wellbeing (EWB) shows acceptable loadings from 0.704 to 0.881. The Information Overload (IO) construct also showed high loadings between 0.768

to 0.899, suggesting that all six items are reliable in this construct. Lastly, the Peer Support (PS) construct demonstrated loadings between 0.751 to 0.921 which indicates satisfactory reliability indicators. The interaction term like PS x IO and PS x DSDW were included as product indicators for moderation analysis, which do not require reliability evaluation in the same way as "reflective construct" (Hair, Hult, Ringle, & Sarstedt, 2022). Overall loadings indicate strong item reliability and conforms that each indicator represents latent construct and none of them were removed as all are acceptable level (≥ 0.70).

4.3.2 Construct Reliability and Validity

Table 3 Construct Reliability and Validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
DSDW	0.925	0.927	0.943	0.77
EWB	0.924	0.927	0.939	0.688
IO	0.929	0.933	0.944	0.739
PS	0.911	0.934	0.916	0.688

Cronbach's alpha, composite reliability, and average variance extracted (AVE) were used to evaluate the construct's internal consistency and convergent validity (Ahmed, Shakur, Hashim, & Ahmed, 2024). According to (Hair, Hult, Ringle, & Sarstedt, 2022), Convergent validity is confirmed by an AVE value of 0.50 or higher, whereas satisfactory internal consistency is indicated by Cronbach alpha and composite reliability values above 0.70. (Hair, Hult, Ringle, & Sarstedt, 2022).

The analysis shows all construct exceeded the recommended reliability threshold. Cronbach's Alpha values for DSDW (0.925), EWB (0.924), IO (0.929) and PS (0.911) which indicate good internal consistency and strong reliability. For every construct, Composite Reliability (rho_c) is greater than the 0.70 threshold, confirming satisfactory construct reliability: DSDW (0.943), EWB (0.939), IO (0.944), and PS (0.916). These results show that the indicators for individual latent construct constantly measures the same primary concepts. The Average Variance Extracted (AVE) values were found for DSDW (0.770), EWB (0.688), IO (0.739) and PS (0.688) which is higher than the suggested threshold of 0.50. This displays that on average over 68 percent of variation in the indicators can be explained by their

respective construct which confirms its convergent validity. This show it is above the standard threshold of 50%. Overall, the results affirm that constructs demonstrate good reliability and validity.

4.3.3 Discriminant Validity: Heterotrait-Monotrait Ratio (HTMT)

Table 4 Discriminant Validity: Heterotrait-Monotrait Ratio (HTMT)

	DSDW	EWB	IO	PS	PS x IO	PS x DSDW
DSDW						
EWB	0.775					
IO	0.846	0.764				
PS	0.192	0.089	0.286			
PS x IO	0.167	0.159	0.198	0.057		
PS x DSDW	0.159	0.152	0.163	0.063	0.868	

Discriminant validity is assessed by measuring the degree of similarities between constructs using the Heterotrait-Monotrait Ratio (HTMT) matrix. According to (Henseler, Ringle, & Sarstedt, 2015), HTMT values less than 0.90 (less than 0.85 in more conservative settings) provide sufficient discriminant validity (Henseler, Ringle, & Sarstedt, 2015). The table shows all values of HTMT are below the recommended threshold. The HTMT Ratio among the main construct are ranged from 0.057 to 0.846. the observed HTMT value ranged from DSDW and EWB (0.775), IO and EWB (0.764) while PS and another construct are ranged from 0.192 to 0.286 which is considerably lower but it supports Discriminant validity. Moreover, the interaction term (PS x IO and PS x DSDW) also displayed acceptable HTMT values with the main construct, with the slightly highest being 0.868 which is considered within the acceptable limit of 0.90.

4.3.4 Collinearity Statistics: Variance Inflation Factor (VIF)

Table 5 Collinearity Statistics: Variance Inflation Factor (VIF)

	VIF
DSDW1	3.234
DSDW2	4.106
DSDW3	3.057
DSDW4	2.648
DSDW5	2.599
EWB1	2.792
EWB2	3.881
EWB3	3.487
EWB4	2.442
EWB5	1.728
EWB6	3.217
EWB7	3.149
IO1	3.512
IO2	2.773
IO3	2.997
IO4	3.508
IO5	1.963
IO6	3.904
PS1	2.535
PS2	2.879
PS3	2.283
PS4	3.009
PS5	2.704
PS x DSDW	1
PS x IO	1

Collinearity statistics were observed using the Variance Inflation Factor (VIF) among indicator variable of each construct. According to (Hair, Hult, Ringle, & Sarstedt, 2022) and (Sarstedt, Ringle, & Hair, 2022), Multicollinearity is not a significant concern when the VIF values are less than 5 while values below 3.3 are considered highly acceptable, showing that the indicators are not strongly correlated with one another (Hair, Hult, Ringle, & Sarstedt, 2022) (Sarstedt, Ringle, & Hair, 2022). All VIF values for the construct's indicators are

displayed in the table DSDW, IO, PS and EWB fall with the acceptable threshold. The VIF value Ranges from 1.728 to 4.106, with the greatest value observed of DSDW2 (4.106) and the lowest value observed of EWB5 (1.728) which indicates that no indicators are exceeding the critical cut off point of 5. This implies that every indicator makes a distinct contribution to its representative construct and There isn't a problem of multicollinearity that could bias the estimation of path coefficients or reduce the model's dependability.

4.3.5 Model Fit

Table 6 Model Fit

	Saturated Model	Estimated Model
SRMR	0.052	0.052
d_ULS	0.752	0.752
d_G	0.566	0.566
Chi-Square	587.259	587.151
NFI	0.844	0.844

An acceptable fit is indicated by the model fit, which show that the estimated model substantially resembles the saturated model. The Standardized Root Mean Square Residual (SRMR) is 0.052 for both models, which is less than the widely recognized threshold of 0.08. This suggests that the model fits well, suggesting that the difference between the observed and predicted correlation is minimal. Lower the SRMR value reflect a better fit. The d_ULS (Unweighted Least Squares discrepancy) values for the estimated model and the saturated model are both 0.752. The d_G (Geodesic discrepancy) values for both the estimated and saturated models are 0.566. The low and nearly identical values of d_ULS and d_G in both models confirm that the suggested model is reliable, consistent, and in line with the data. In terms of decimals, the chi-square values for the saturated model and the estimated model are 587.259 and 587.151 respectively, the slight variation between these two figures but reinforces the model's strength. Finally, for both models, the Normed Fit Index (NFI) was 0.844, exceeding the minimum acceptable level of 0.80 and approaching the perfect threshold of 0.90. This demonstrates that the model fits the data satisfactorily overall and effectively represents the relationships between the constructs

4.4 Structural Model

4.4.1 Path Coefficient (P-value and Beta β)

Table 7 Path Coefficient (P-value and Beta β)

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
DSDW -> EWB	-0.406	-0.419	0.071	5.714	0.000
IO -> EWB	-0.418	-0.405	0.085	4.908	0.000
PS -> EWB	0.107	0.099	0.088	1.220	0.111
PS x DSDW -> EWB	0.051	0.022	0.102	0.503	0.308
PS x IO -> EWB	-0.034	-0.011	0.12	0.284	0.388

The path from the Darkside of digital workplace (DSDW) to Employee wellbeing (EWB) yield coefficient of β = -0.406 with p-value 0.000 and t-value 5.714. There is a strong negative impact because the relationship is statistically significant at $P < 0.05$. This suggest that higher exposure to Darkside of digital workplace like technostress, digital fatigue or digital burnout, this significantly reduces employee wellbeing. This finding aligns with prior research emphasizing that excessive technology use and digital work demand can cause psychological stress and deteriorate mental stability (Tarafdar, Cooper, & Stich, 2019). Similarly, Information overload (IO) shows a significant negative relationship with employee well-being (EWB) β =-0.418, t value of 4.908 and p values of 0.000. The result confirms that employees are experiencing information overload which is caused by constant digital communication that lowers wellbeing level. The outcome supports prior literature that excessive digital information leads to cognitive fatigue, stress, and reduced job satisfaction (Eppler & Mengis, 2004). However, peer support (PS) shown a statistically insignificant but positive correlation with EWB (β = 0.107, t value of 1.220, p value 0.111), suggesting that while supportive peers may improve wellbeing but the effect is not strong to counteract digital stressor.

The interaction term PS x DSDW → EWB showed that the moderating effect of PS on the relationship between the DSDW and EWB is not statistically significant, with a path coefficient of β = 0.051, a t-value of 0.503, and p = 0.308. This means that PS does not meaningfully buffer or reduce the negative impact of digital workplace stressors on employee's well-being. Similarly, the interaction effect of PS x IO → EWB is also insignificant (β = -0.034, t = 0.284, p = 0.388). This suggest that even though peers may provide emotional or practical assistance, their influence may be insufficient to counter the overwhelming nature of excessive information in digital environment.

4.4.2 Coefficient of Determination (R^2)

Table 8 Coefficient of Determination (R2)

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
EWB	0.582	0.602	0.066	8.76	0.000

The R square (R2) value for employee wellbeing (EWB) is 0.582, meaning that the combined effects of information overload (IO), and the dark side of digital workplace (DSDW) account for around 58.2% of the variance in employee wellbeing, including the moderating effect of peer support (PS). This demonstrates a moderate to strong level of explanatory power. (Hair, Hult, Ringle, & Sarstedt, 2022) state that R2 values of 0.25, 0.50, and 0.75 indicate low, medium, and strong predictive accuracy, respectively. The result suggests that digital DSDW and IO significantly shapes employee wellbeing outcomes, while PS contributes to explaining variance but individual effect was not significant statistically. The p-value of 0.000 and t- value of 8.75 further confirms that the model's predictive accuracy is statistically significant that validates the strength and reliability of the model.

4.4.3 Effect Size (F^2)

Table 9 Effect Size (F2)

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
DSDW -> EWB	0.15	0.169	0.068	2.225	0.013
IO -> EWB	0.15	0.16	0.085	1.767	0.039
PS -> EWB	0.025	0.04	0.041	0.616	0.269
PS x DSDW -> EWB	0.002	0.007	0.01	0.161	0.436
PS x IO -> EWB	0.001	0.009	0.014	0.053	0.479

The F square (F^2) value evaluates the Each independent variable's unique contribution to the explanation of the dependent variable's variance. According to (Hair, Hult, Ringle, & Sarstedt, 2022), F^2 value thresholds are 0.02 for small effects, 0.15 for medium effects, and 0.35 for big effects. The finding indicates that DSDW (DSDW → EWB) has f^2 value of 0.15 (P=0.013) which represent a medium effect size. This means the DSDW contributes moderately and significantly. The path direction shown in path coefficients further implies that DSDW moderately reduce employee wellbeing. IO (IO → EWB) has an f^2 of 0.15 (P=0.039) indicates another medium effect on employee wellbeing. This means that excessive IO moderately influence and reduces EWB. PS (PS → EWB) shows f^2 value of 0.025(P=0.269) suggesting a small and statistically insignificant effect. This implies PS alone does not make a substantial contribution to EWB in the presence of DSDW and IO. The interaction terms PS x DSDW → EWB (F^2 = 0.002, p= 0.436) and PS x IO → EWB (F^2 =0.001, P= 0.479) both shows negligible and statistically insignificant effect size. This suggest that peer support does not significantly moderates the negative effects of Darkside of digital workplace (DSDW) and Information Overload (IO) on Employee wellbeing (EWB).

4.5 Models

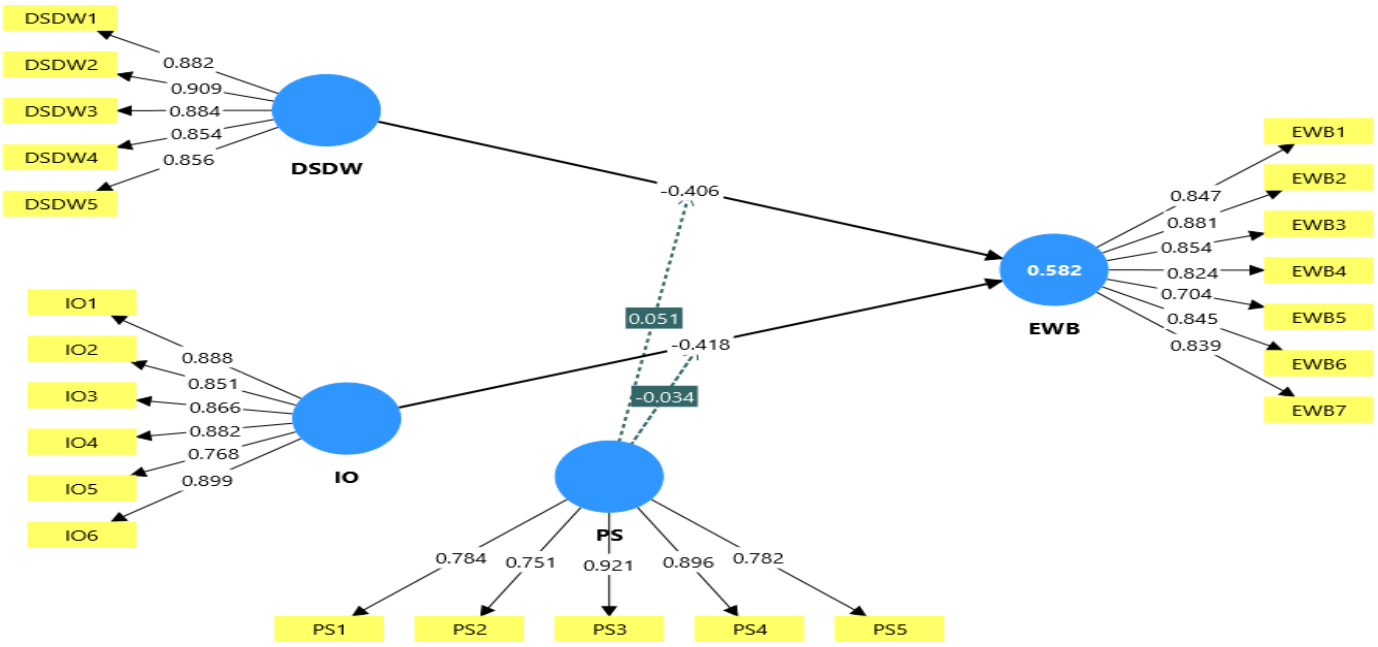

Figure 2 Measurement Model

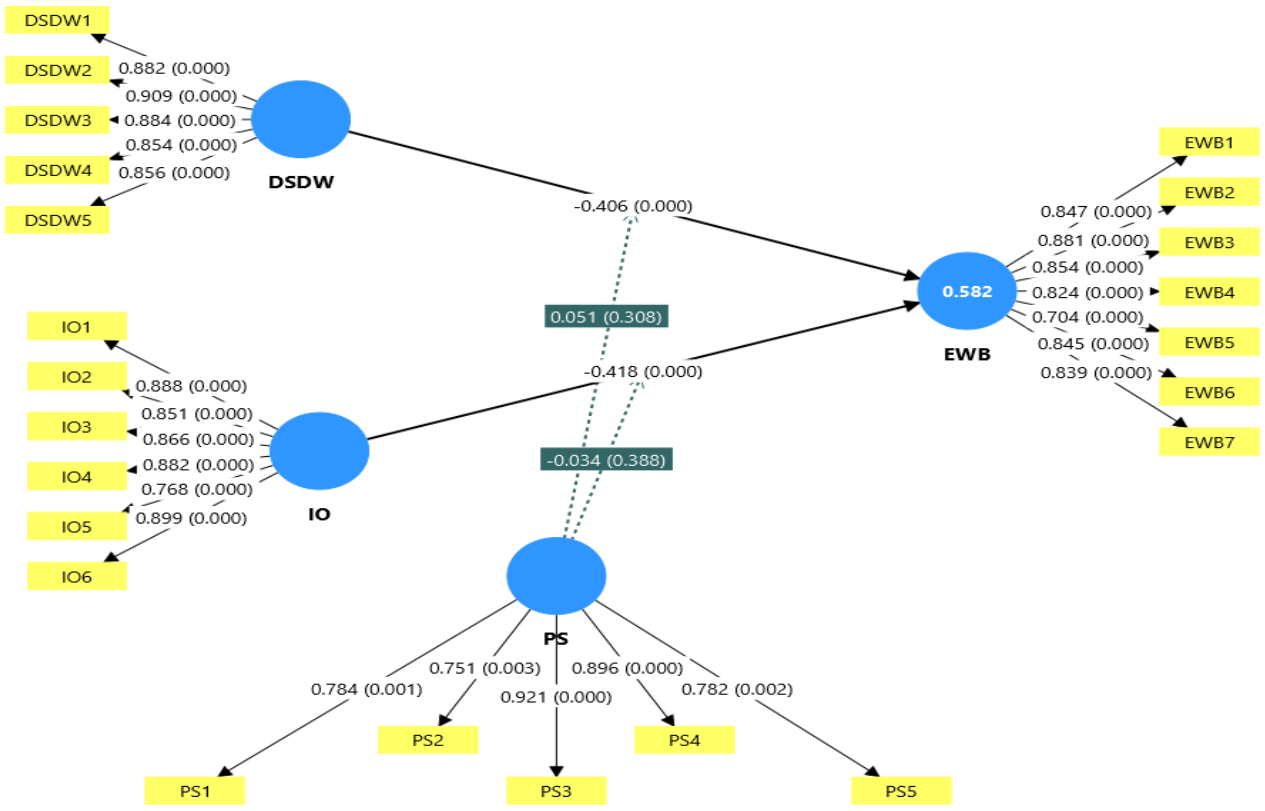

Figure 3 Structural Model

4.6 Hypothesis Testing

Table 10 Hypothesis Testing

Hypothesis	β (Beta)	T-value	P-value	Testing
H1: The dark side of the digital workplace has negative effects on employee wellbeing.	-0.406	5.714	0.000	**Accepted / Supported**
H2: Information overload has negative effects on employee wellbeing.	-0.418	4.908	0.000	**Accepted / Supported**
H3: Peer support moderates the relationship between the dark side of the digital workplace and employee wellbeing. such that higher peer support reduces the negative impact of the dark side of digital workplace.	0.051	0.503	0.308	**Not Accepted / Not Supported**
H4: Peer support moderates the relationship between information overload and employee wellbeing. such that higher peer support reduces the negative impact of information overload.	-0.034	0.284	0.388	**Not Accepted / Not Supported**

4.7 Chapter Summary

This chapter offered the study's empirical findings and established and established that darkside of digital workplace and information overload have negative effect on employee wellbeing. Although peer support appears to be a positive factor but its role was not statistically significant in moderating these negative effects. The results highlight that while social connection at work remain valuable but they may not be sufficient to prevent the complex pressure of digital environment. Collectively, the findings provide a strong empirical basis for understanding how digitalization effect wellbeing and offers guidance for the organizations to develop healthier digital work practices.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.1 Discussion

This study's objective was to look into how darkside of digital workplace and the information overload shapes employee wellbeing within Pakistan's information technology sector. The study also examined whether peer support can mitigate or ease these pressures. Based on Job Demand-Resource Model, the research focused on how digital pressures act as job demand that drains employee's mental and emotional capacity and whether peer support can serve as a resource to protect their wellbeing. This theoretical approach has been widely used to explain how work demand affect stress and performance in modern work environment (Bakker & Demerouti, 2007).

The findings indicate a substantial and negative relationship between the dark side of the digital workplace and employee wellbeing (β of -0.406, T value of 5.714, P value 0.000) thus confirming hypothesis H1. This result is in line with earlier studies that technology intensive environments create technostress, psychological strain and digital fatigue (Tarafdar, Cooper, & Stich, 2019). The JD-R Model states that the negative aspects of digitalization become job demands that drain cognitive and emotional resources. Employees in IT roles often struggle with constant connectivity, expectations of immediate responses and digital monitoring, all of which contribute to technostress, digital fatigue and lead to work life imbalance. These results confirm that wellbeing deteriorates when digital demands exceed person's capacity. The study also found a substantial adverse relationship between information overload and employee wellbeing (β of -0.418, T value of 4.908, P value 0.000), supporting H2. This result is in line with earlier studies that excessive amounts of unstructured information overload burdens employee's cognitive capacity, disrupts decision making, increases mental fatigue and stress (Eppler & Mengis, 2004). IT professionals are frequently faced with a never-ending barrage of messages, emails, and notifications alerts, which fragments attention and impairs concentration that causes stress and mental distraught. These results strengthen the JDR argument that information overload represents a demanding work condition that requires continuous cognitive effort and ultimately it negatively impacts well-being. The moderation analysis finding shows that peer support does not significantly moderate this relationship (β of 0.051, T value of 0.503, P value of 0.308), resulting in H3's rejection. This suggests that support from peers is not strong enough to lessen the harmful effects of digital job demands. IT work environments are typically performance-oriented and task-focused, which may limit

meaningful emotional support among peers. Furthermore, previous research on work-related stress shows that in highly specialized or high-pressure roles, peer support tends to be more instrumental than emotional, reducing its buffering strength (Sonnentag & Frese, 2013). Similarly, peer support did not significantly moderate the relationship between information overload and well-being ($\beta = -0.034$, $t = 0.284$, $p = 0.388$), meaning H4 is not supported. This finding suggests that while social relationships are important, they may not be sufficient to offset the cognitive stress caused by excessive information demands. Previous studies have shown that "digital work environments weaken interpersonal relationships and make it more difficult for employees to obtain the emotional support needed to cope with stress" (Wang, Liu, Qian, & Parker, 2021) (Davenport, 2025).

5.2 Conclusion

This study examined the effects of detrimental elements of the digital workplace and information overload on the well-being of employees in Pakistan's IT industry and examined how peer support may function as a moderating component. Based on Job Demand Resource Model it examined how demanding digital conditions affect employees and whether supportive social relationships between peers can help reduce the negative consequences. It was evident from the analysis that both the negative aspects of the digital work environment and information overload negatively impact employee well-being. These results reflect the experience of many employees who feel that technology has increased their workload and made it challenging to detach from work and confirms that continuous digital demands and excessive flows of information can create stress, fatigue and emotional strain. In other words, when workers feel overpowered by technology, their wellbeing suffers. Peer support is a crucial resource that helps employees cope with the effects of digital effects. Employees who feel supported by their colleagues tend to manage digital challenges more effectively. Peer support, however, had a weak moderating impact in the case of darkside of digital work place and information overload, which indicate that cognitive strain, digital fatigue and technostress is more difficult to buffer through social support from peers alone. The findings emphasize the need for organizations to manage digital demands more responsibly, develop clear guidelines for digital communication, and reduce unnecessary technological pressure. Structured measures to promote digital wellbeing, training programs, and psychological recovery services can help employees cope with information overload and digital stress. Leaders should also foster a team culture that supports mutual support, even if this alone may not be enough to fully

compensate for digital demands. Together, these measures may establish a digital workplace that is more sustainable and healthful.

5.3 Practical Implications

The study's conclusions provide valuable guidance for HR managers, executives, and decision-makers in the IT sector. As result demonstrate that both the darkside of the digital workplace and information overload has negatively impact employee wellbeing and it need timely and balanced interventions. The results suggest that while digital tools boost productivity but they also expose employees to psychological pressures such as constant availability, fear of being monitored, overload from excessive tasks, technostress and digital fatigue this can lead burnout. This contributes to technostress that diminishes motivation and overall satisfaction it causes burnout. Organizations can respond by developing digital wellbeing programs that teach employees how to set boundaries, regulate information flow and use technology more consciously. Simultaneously, management should implement clear communication and workload management guidelines to prevent information overload, as excessive digital communication in fast paced IT environments often disrupts concentration. Strategies such as reducing unnecessary emails, introducing centralized platforms and promoting short digital breaks can help. Furthermore, organizations can improve their responses by using HR analytics to monitor wellbeing indicators through feedback tools, pulse surveys and stress analyses. This helps identify emerging problems early and also enables targeted interventions. Additionally, business organizations and policymakers are involved in establishing standards for digital wellbeing in Pakistan's IT sector. They can provide regulatory guidance that prevents excessive digital usage in working environment and promotes reasonable access to wellbeing resources, aligning themselves with international regulatory frameworks such as World Health Organization. Overall, The results of this study demonstrate that addressing digital workplace stressors requires a comprehensive and proactive approach, this combines technology regulation, leadership awareness training, increased societal support, and informed decision-making. Ultimately, it helps organizations to transform the digital workplace from a source of stress into an environment that fosters wellbeing and working environment.

5.4 Research Limitation

This study provides important insights but also has some limitations that require careful interpretation and offer suggestions for research in the future Firm causal relationship cannot be established due to the cross-sectional approach. While clear links were found between the darkside of the digital workplace, information overload, and wellbeing of the employee, only longitudinal or experimental studies can capture how these relationships evolve over time or over long period of time. The use of convenience sampling from IT professionals in Pakistan also limits the general reach of the finding, as digital pressures in the IT sector differ from other industries such as healthcare, education or manufacturing etc. Using other methods like random and snowball method might give unbiased responses. The non-significant moderating effect of peer support may also reflect measurement limitations, as the instrument used may not have fully captured all forms of support like including informational, practical, and emotional support and the intensity of peer support likely varies depending on organizational culture and the intensity of digital work. Cultural influences may also affect the results as workplace norms in Pakistan such as hierarchical structures and communication expectations can affect how employees perceive digital demands and support. Therefore, cross-cultural or comparative studies would be helpful to determine whether similar patterns emerge in other contexts. Although 185 is an adequate sample size for the PLS-SEM analysis but it limits a more in-depth examination of subgroups. Future research could use a larger sample size that would allow researchers to investigate how factors like gender, age and the duration of service influence experiences and responses to digital wellbeing.

5.5 Future Research Recommendation

Based on the results and considering the research's limitations, several important directions emerges for future research. Longitudinal studies should be the first thing researchers do to understand how the demands of digital work affect well-being over extended periods. This approach would reveal whether employees adapt to sustained digital pressure or experience a gradual decline in their wellbeing, this could provide a more robust causal perspective. Future studies should also explore other potential resources that can protect employees from digital stress. Factors like digital self-efficacy, organizational support, and empathetic leadership which may offer greater protection than peer support alone. Another important research approach focuses on digital resilience and technology-related coping strategies. Understanding how employees use strategies such as digital detox, selective

interaction, and mindfulness could deepen the theoretical discussions within the JDR model and support the development of practical interventions to promote wellbeing. Future studies should also broaden their focus to include remote and hybrid work environments as these are increasingly common that bring new dynamics to information flow, social relationships, and wellbeing. To provide a more complete view of digital stresses, future research should also cover a wider range of industries. Understanding their impact is essential for more effective HRM practices and the design of digital work environments.

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APPENDIX

RESEARCH QUESTIONNAIRE

This questionnaire is designed to gather insights for academic research. The sole purpose of research is conducted to get insight on employee wellbeing. Your responses are highly valued and will contributes significant meaning to this study. All responses will remain anonymous and confidential. kindly take few minutes to complete this form. Your participation is greatly appreciated.

SEACTION A: GENERAL INFORMATION/DEMOGRAPHICS

GENDER

- Male
- Female
- Prefer not to say

AGE

- 21 - 30 years
- 31 - 40 years
- 41 - 50 years
- Above 50 years

EDUCATION

- Matric
- Intermediate
- Bachelors
- Masters

EXPERIENCE

- below 1 year
- 3 years
- 4 - 5 years
- 5 and above

SECTION B

DARKSIDE OF DIGITAL WORK PLACE	(1) Strongly Disagree	(2) Disagree	(3) Neither Agree nor Disagree	(4) Agree	(5) Strongly Agree
1. I am forced by this technology to work much faster.	1	2	3	4	5
2. I am forced by this technology to do more work than I can handle.	1	2	3	4	5
3. I am forced by this technology to work with very tight time schedules.	1	2	3	4	5
4. I am forced to change my work habits to adapt to new technologies.	1	2	3	4	5
5. I have a higher workload because of increased technology complexity.	1	2	3	4	5

INFORMATION OVERLOAD	(1) Strongly Disagree	(2) Disagree	(3) Neither Agree nor Disagree	(4) Agree	(5) Strongly Agree
1. I have to manage so much information in my daily life that it takes me a long time to complete even simple tasks.	1	2	3	4	5
2. I regularly feel overwhelmed by too much information these days.	1	2	3	4	5
3. There is so much information available on topics of interest to me that I have trouble choosing what is important and what's not.	1	2	3	4	5
4. I have to process so much information that it frequently takes me too	1	2	3	4	5

long to get things done in a timely manner.					
5. I am confronted by an avalanche of Email, phone and text messages each day.	1	2	3	4	5
6. I have so much information to manage on a daily basis that it is hard for me to prioritize tasks.	1	2	3	4	5

EMPLOYEE WELLBEING	**(1) Strongly Disagree**	**(2) Disagree**	**(3) Neither Agree nor Disagree**	**(4) Agree**	**(5) Strongly Agree**
1. I feel emotionally drained by my work.	1	2	3	4	5
2. I feel like my work is breaking me down.	1	2	3	4	5
3. I feel frustrated by my work.	1	2	3	4	5

4. I feel I work too hard at my job.	1	2	3	4	5
5. I can tolerate the pressure of my work very well.	1	2	3	4	5
6. After work, I tend to need more time than in the past in order to relax and feel better	1	2	3	4	5
7. After my work, I usually feel worn out and weary	1	2	3	4	5

PEER SUPPORT	**(1) Strongly Disagree**	**(2) Disagree**	**(3) Neither Agree nor Disagree**	**(4) Agree**	**(5) Strongly Agree**
1. My manager helps me learn from my mistakes and turns them into productive development opportunities.	1	2	3	4	5
2. My manager recognizes me	1	2	3	4	5

when I perform well.					
3. My manager helps me get the resources that I need to do my job.	1	2	3	4	5
4. My manager supports my overall success and achievement.	1	2	3	4	5
5. My manager supports my professional growth and development.	1	2	3	4	5

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Bahria University
Islamabad Campus

RC-04

MBA

1st Half Semester Progress Report

Name of Student(s)	**Noor Ul Huda**
Enrollment No.	**01-221242-008**
Thesis/Project Title	**Exploring the Impact of Information Overload and the Darkside Of Digital Workplace on Employee Wellbeing: The Moderating Role of Peer Support**

Supervisor Student Meeting Record

No.	Date	Place of Meeting	Topic Discussed	Signature of Student
1	10 Sep 2025	supervisor office	Data collection Tools Discusseed	
2	25 sep 2025	//	Reviewed Questionnair	
3	08 oct 2025	//	Progress of the data collection	
4	20 oct 2025	//	Smart PLS analysis Training & Approaches	

Progress Satisfactory [✓] Progress Unsatisfactory [ ]

Remarks: The student is hardworking and diligent

Signature of Supervisor: Mahaka Manzoor Date: 16-12-2025

Name: Maleeha Manzar

Note: **Students attach 1st & 2nd half progress report at the end of spiral copy.**

Bahria University
Islamabad Campus

RC-04

MBA

2nd Half Semester Progress Report & Thesis Approval Statement

Name of Student(s)	**Noor Ul Huda**
Enrollment No.	**01-221242-008**
Thesis/Project Title	**Exploring the Impact of Information Overload and the Darkside Of Digital Workplace on Employee Wellbeing: The Moderating Role of Peer Support**

Supervisor Student Meeting Record

No.	Date	Place of Meeting	Topic Discussed	Signature of Student
5	6 Nov 2025	Supervisor office	Analysis Result Reviewed	
6	25 Nov 2025	"	Discussed Result Interpretition, Discussion & conclusion chapter	
7	10 Dec 2025	"	Final Review & Checked Plagiarsim	

APPROVAL FOR EXAMINATION

Candidates' Name: **Noor Ul Huda** Enrollment No: **01-221242-008**

Project/Thesis Title: **Exploring the Impact of Information Overload and the Darkside Of Digital Workplace on Employee Wellbeing: The Moderating Role of Peer Support**

I hereby certify that the above candidates' thesis/project has been completed to my satisfaction and, to my belief, its standard appropriate for submission for examination. I have also conducted plagiarism test of this thesis using HEC prescribed software and found similarity index at 13% that is within the permissible limit set by the HEC for thesis/ project BBA/MBA. I have also found the thesis/project in a format recognized by the department of Business Studies.

Signature of Supervisor: Maheeba Manzoor Date: 16-12-2025

Name: Maheeba Manzoor