

DIGITAL DETOX INTERVENTIONS AND EMPLOYEE PRODUCTIVITY: THE EFFECT ON WELL-BEING AND ENGAGEMENT ON THE PAKISTANI ORGANIZATIONS

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Abstract

Digital overload of digital technologies that have now become very common in contemporary workplaces is accompanied by cognitive load, emotional exhaustion, and low productivity. Digital detox, which is a form of interventional reduction on the use of digital devices, has been suggested as a way of curbing these effects. This paper focuses on exploring how digital detox interventions can influence the productivity and well-being of employees in Pakistani organizations and also how employee engagement moderates this relationship. The survey was performed as a cross-sectional survey of 620 employees working in various fields (banking, IT/telecom, healthcare, education, and the public administration). Validated and free instruments were used to collect the data: Digital Detox Behavior Scale, Individual Work Performance Questionnaire (IWPO), WHO-5 Well-Being Index, and Utrecht Work Engagement Scale (UWES-9). Correlation and regression analyses demonstrated that the employee productivity ($r = .42, p < .01$), well-being ($r = .56, p < .01$), and engagement ($r = .48, p < .01$) have a positive correlation with digital detox interventions. Also, relationships between engagement and digital detox were moderating therefore increasing the advantages of digital detox on both productivity and well-being. These results are in line with the Job Demands-Resources (JD-R) model, which indicates that recovery-centered organizational resources together with personal engagement would positively impact the outcomes of work. The research also offers specific implications to apply the digital wellness programs within the hierarchical and high-demand workplaces, proving that planned digital breaks can enhance simultaneously the productivity, well-being, and engagement in the Pakistani organizations.

Keywords: Digital Detox, Employee Productivity, Employee Well-Being, Employee Engagement, Organizational Intervention, Pakistan.

Introduction

Digital technologies have become inalienable in the daily work of the modern organization environment. Employees are so much dependent on emails, instant messaging platforms, social media and collaborative software to communicate, share information and make decisions. These tools are efficiency enhancing but a big challenge has emerged as a result of them and that is digital overload. The problem of digital overload is present when employees experience a greater amount of digital communication and information at the same time, which is accompanied by cognitive strain, emotional fatigue, and a lack of focus (Mark, Wang, and Niiya, 2018; Rosen, Lim, Carrier, and Cheever, 2013). It is usually hard to forget the working-related technology and constant connection can counterproductively decrease the efficiency of work and cause mistakes, slowness in accomplishing tasks, and diminished output (Syvertsen and Enli, 2019). This concept of digital overload has been especially

applicable in the hybrid and high-tech workplaces even in Pakistan. The Pakistani organizations provide employees with common challenges, including the hierarchical reporting, collectivist culture, and high demands to be responsive. Such situational conditions add to the implications of ongoing electronic interaction, predisposing employees to stress, exhaustion, and lower job execution.

Interventions Digital detox interventions have become possible solutions to overcome these problems. Such interventions can be referred to as planned intervals of active digital device detachment to alleviate cognitive load and re-focus mind and improve psychological health (Syvertsen and Enli, 2019). Digital detox may be realized with the help of organizational policies, like meetings without the use of devices, there may be no-emails days or can be carried out personally, restricting the use of smartphones during breaks. It has been argued that digital detoxes interventions have the potential to enhance attention, emotional regulation, work-life balance, and overall productivity, suggesting that they can be used as a promising strategy to increase the performance of workers in the technology-intensive environment (Reinecke et al., 2018).

Problem Statement

Although the problem of digital overload is becoming an acknowledged problem in the workplace, empirical studies that discuss the effectiveness of the digital detox intervention are very limited, particularly in non-Western organizational settings. As hierarchical and collectivist working conditions tend to force Pakistani employees to be constantly in touch with their supervisors and coworkers, they are especially prone to the threat of digital fatigue and stress. Very limited literature has been done on the effect of structured digital detox interventions on employee productivity, well-being and engagement in such culturally oriented set-ups. Thus, the proposed study will focus on investigating the impact of digital detox interventions on the productivity and well-being of employees working in Pakistani organizations and a possibility of the moderating effect of employee engagement.

Purpose of the Study

This study aims at exploring the impact of digital detox interventions on employee productivity and well-being in Pakistani organizations and whether employee engagement mediates the effectiveness of digital detox interventions. This research will not only deliver some theoretical contributions to the body of organizational psychology but also specific recommendations on the implementation of digital wellness programs that will enhance productivity and health of employees at the same time.

Significance of the Study

The research is important in several aspects. In theory, it broadens the information on the topic of technology-related stress and its effects on productivity and well-being in a non-Western cultural environment. In practice, the results can assist companies in creating digital detox initiatives that can harmonize the needs of technology with the psychological well-being of the employees, as an affordable way to cope with burnout and promote concentration. This study can be of great use in the Pakistani context where the hierarchies within organizations and the cultural demands can increase the digital fatigue.

Research Objectives

The objectives that guide this study are as follows: to investigate how digital detox interventions affect the productivity of the employees, to analyze the effect of these interventions on the well-being and job satisfaction of the employees, to learn whether employee engagement mediates the relationship between digital detox interventions and the productivity of the employees, and to offer evidence-based suggestions that can help organizations adopt effective digital wellness approaches.

Research Questions

1. Do digital detox interventions contribute significantly to the productivity of employees?
2. What is the effect of digital detox interventions on the well-being and work satisfaction of employees?
3. Does the relationship between digital detox interventions and productivity depend on employee engagement?
4. What are the best ways, through which Pakistani organizations can pursue effective digital detox programs to optimize the results of the employees?

Hypotheses

1. H1: Digital detox intervention programs have a considerable positive impact on the productivity of employees.
2. H2: Digital detox programs have a significant positive impact on the well-being of the employees and job satisfaction.
3. H3: There is a moderating impact between digital detox intervention and productivity through employee engagement whereby the greater the engagement, the stronger the moderating effect of digital detox on productivity.

Conceptual Definitions

Digital detox interventions, as they are used in the context of the current study, are either organizationally imposed or personally chosen practices to limit or completely stop using digital devices to replenish cognitive and emotional resources (Syvertsen and Enli, 2019). Employee productivity refers to the efficiency and effectiveness of people in performing their assigned duties as well as towards organizational objectives (Bakker and Demerouti, 2017). Employee well-being refers to psychological, emotional and physical health results, such as stress, mental vitality and job satisfaction (Danna & Griffin, 1999). The employee engagement is a good and satisfying work related psychological state of vigor, commitment and absorption which determines the reaction of employees to interventions (Schaufeli, Salanova, Gonzales-Romaz, and Bakker, 2002).

Contextual Relevance

Hierarchies and high-power distance are units of Pakistani organizations, prone to establishing an atmosphere in which employees are constantly online. Such constant interconnectivity adds the risk of cognitive overload, stress, and poor performance. In order to implement digital detox interventions in such a setting, one needs to have knowledge about cultural norms, the organizational policies and employee behavior. The results of this research will help to understand how the digital detox programs can be customized to improve productivity, well-being, and engagement in the Pakistani workplaces.

Literature Review

The nature of work has been radically altered by the growing adoption of digital technologies in the workflow of organizations. On the one hand, digital tools enhance efficiency, collaboration, and communication; however, they have also led to the so-called digital overload adversely impacting the productivity of employees, their mental health, and engagement. This chapter critically reviews the available literature on the digital overload, digital detox programs, organizational productivity, and well-being with reference to theoretical frameworks, research findings, and gaps in the literature, especially in non-Western and Pakistani organizational contexts.

Digital overload also known as information overload or technostress is the exposure of employees to too much digital communication and information that exceeds their cognitive ability to process and deal with it constructively (Mark, Wang, and Niiya, 2018). This overload may take various forms like constantly changing tasks as a result of notifications,

over-checking the emails, and constant use of social media to conduct work. Research has shown that digital overload causes people to become more stressed, emotionally exhausted, and less focused, which consequently impairs the capacity of employees to work their best (Rosen, Lim, Carrier, and Cheever, 2013). Overextensive use of digital devices in organizations may compromise decision making process, enhance mistakes, and affect mental processes. It is aggravated in the context of hybrid workplaces where the workers have to control the on-site and digital activity at a time. High workloads, hierarchical anticipations, and collectivist culture and culture, which demand 24-hour access, aggravate the problem of digital fatigue in Pakistani organizations, and employees are especially susceptible to burnout and low productivity (Syvertsen and Enli, 2019).

Digital detox interventions are task-oriented plans that are aimed at helping to decrease or stop using digital devices, in order to ease cognitive and emotional tension. Organizational measures like holding device-free meetings, no-email hours, and restricting after-hours communication, or personal, like self-imposed device-free intervals, can be used (Reinecke et al., 2018). Studies indicate that digital detox programs can be effective to replenish the cognitive resources, regulate emotions, and focus on productivity and well-being.

Empirical research indicates that workers undergoing digital detox programs also experience a reduction in the rates of stress and anxiety, better mood, and increased work performance (Su, Pentina, and Zhang, 2017). Moreover, it is possible to focus on cognitive restoration through planned breaks and help employees focus, be more creative, and motivated in their work (Syvertsen and Enli, 2019). Although the bulk of the research has been carried out in the Western context, the importance of studying the effects of such interventions in non-Western ones has been increasingly acknowledged, with cultural norms, hierarchy within the organization, and level of work load potentially contributing to the effectiveness of the interventions.

Employee productivity is a multidimensional concept that includes not only the effectiveness and quality in the execution of the tasks but also the accomplishment of goals and the contribution to the organizational goals, in general (Bakker and Demerouti, 2017). The environmental factors that affect productivity include workload, technology, and organizational support, whereas the individual factors are cognitive capacity, emotional well-being, and engagement. As it has been found, cognitive overload and digital fatigue tend to have a considerable negative impact on productivity because employees find it hard to remain focused and cope with the competing tasks (Mark et al., 2018). The use of digital detox interventions has been found to enhance task efficiency with fewer interruptions, fewer demands of multitasking and workers being able to concentrate on the most important tasks. Digital detox methods are an essential intervention in the organization since they can help employees improve time management, precision, and overall productivity in the workplace, especially when they have to work long hours and are expected to be constantly engaged through digital communication in the context of a specific country such as Pakistan.

Employee well-being refers to psychological, emotional and physical health which holds the general quality of the work experience (Danna and Griffin, 1999). Digital overload is always linked to a higher level of stress, anxiety, and burnout that may reduce well-being levels and contribute to absenteeism, the lack of motivation, and job dissatisfaction. Digital detox interventions can be regarded as one of the tools to restore the state of well-being through decreasing the digital stimulus and enhancing the mental recovery. Research shows that a short-term inability to be connected with digital devices might help to decrease stress, improve mood, and feel more in control of work-related activities (Reinecke et al., 2018). Such interventions can be especially effective in Pakistani organizations when the impact of

excessive connectivity, worsened mental health, and the ability to maintain sustainable work performance are rather negative, as hierarchical pressures and heavy workloads are common issues in this country.

Employee engagement is a positive, satisfying state of work, which is defined by vigor, commitment, and involvement (Schaufeli, Salanova, Gonzalez-Rom, and Bakker, 2002). Participation plays a vital role in the response of the employees towards interventions at the workplace. Employees who feel highly engaged tend to use digital detox periods more effectively which means that recovered cognitive and emotional resources can be transferred into better performance and productivity in the tasks. On the other hand, less engaged employees might not be able to take advantage of these interventions. It has been proposed in research that engagement can moderate the effect of the interventions carried out to improve productivity and well-being. Under the framework of digital detox, it is assumed that engagement will reinforce the relationship between less digital exposure and better performance outcomes underlining the role of individual differences in designing and implementing organizational interventions.

There is a theoretical foundation of the effects of digital detox interventions, which is the Job Demands-Resource (JD-R) model (Bakker and Demerouti, 2017). This model suggests that job demands, like digital overload, cause strain and may result in burnout, whereas job resources, including structured recovery, and policies supportive of this activity, mitigate the undesirable impact of demands and encourage engagement. The interventions of digital detox can be modeled as job resources that can replenish the cognitive and emotional abilities of employees, thus improving the productivity and well-being.

Notwithstanding the increased interest in digital detox interventions, there are still a number of gaps. Firstly, majority of the studies have been carried out in a Western setting, which constrains the generalization of the results in collectivism, hierarchical organizations, such as those in Pakistan. Second, not many studies have discussed productivity, well-being, and engagement at the same time, and there is a gap in the knowledge regarding the interaction between these variables. Lastly, the impact that cultural norms, hierarchical expectations, and workload pressures have on the effectiveness of digital detox interventions is under-researched, which is why it is necessary to explore these processes in the Pakistani organizational environment.

The literature shows that digital overload hurts productivity and well-being, and digital detox interventions provide an effective way of reducing the effects. Employee engagement is an important element that determines the ability of employees to be well benefiting with such interventions. Through these relationships in Pakistani organizations, the study expects to fill the current gaps in research and offer practical information on how research-based evidence can be used to deliver a digital wellness program to improve the performance of the employee and the organization.

Methodology

Research Design

The current research adopted a cross-sectional survey, where digital detox interventions, employee productivity, employee well-being, and employee engagement were studied within the Pakistani organizational contexts, in a quantitative manner. Quantitative survey designs are frequently employed during organizational psychology to quantify behavioral and psychological variables, as well as test the hypothesis of theoretical models, by using a statistical approach (Creswell & Creswell, 2018). The design enabled the researcher to obtain standardized answers of the employees serving in different organizational departments and compare the effects of digital detox measures on productivity and well-being performances. The study theoretical framework was based on the Job

Demands Resources (JD-R) model according to which excessive job demands (including the necessity to be constantly digitally connected) can cause stress and a decline in well-being, and job resources (including the possibility of recovery and supportive work practices) can contribute to engagement and increased performance (Bakker and Demerouti, 2017).

Instruments

A structured questionnaire that is composed of four validated measurement scales was used to gather data, all of which are commonly used in the research of organizations and psychology and are open to be used in the academic research. A demographic section was also included in the questionnaire to get the background characteristics of the participants.

- **Digital Detox Behavior Scale:** The behavior of digital detox was assessed with a modified form of the Digital Detox Scale that was created in the research focusing on the behavioral intention of people to disconnect intentionally with digital technologies. The scale will evaluate the inclinations of the workers to restrict their use of digital devices during working hours to decrease cognitive overload and replenish psychological sources. Behavioral measures covered by items in the scale include the frequency of reducing checking email, unnecessary smartphone use and involvement in technology free work time. Some studies, conducted in the past, have confirmed that the digital detox behavior has been effective in alleviating technology-related stress and enhancing concentration and well-being (Reinecke et al., 2018; Syvertsen and Enli, 2019). The response to the items was based on a five-point Likert scale, with the 1 (strongly disagree) to 5 (strongly agree) scale.
- **Employee Productivity:** The Individual Work Performance Questionnaire (IWPQ) created by Koopmans et al. (2014) was used to measure employee productivity. The IWPQ is a popular tool that is aimed at assessing the performance of employees in terms of the work quality and productivity. The scale determines the effectiveness of employees in terms of accomplishing tasks, workload, and high performance standards within the organizational contexts. The IWPQ has been tested in several occupational settings and has proved to be very reliable and construct valid. Due to the availability of the questionnaire publicly to use in the research, it is commonly applied in research concerning organizational productivity.
- **Employee Well-Being:** The WHO-5 Well-Being Index was used to determine employee well-being, which was created by the World Health Organization (WHO, 1998). WHO-5 is a short and efficient instrument of psychological well-being and mood functioning. The scale consists of the items that imply the positive mood, vitality, and overall mental health. The WHO-5 has been extensively employed in cross-cultural studies and it has shown to be highly psychometrically sound in a wide range of cultures. This is due to the fact that the instrument is open access, free of charge, and is typically used in organization and psychology studies that explore the mental health and well-being of employees.
- **Employee Engagement:** The Utrecht Work Engagement Scale -Short Version (UWES-9) created by Schaufeli, Bakker and Salanova (2006) was used to measure employee engagement. The scale evaluates three areas of engagement: vigor, dedication and absorption. These dimensions define the level of energy and interest of the employees on the job and their extensive engagement with the job activities. UWES-9 is among the most popular engagement scales used in organizational psychology and can be used freely by academic professionals by citing. The past researches have shown high reliability and validity of the scale in different organizational contexts.

- **Demographic Variables:** Besides the primary variables of the study, demographic data were also gathered to characterize the features of research participants and investigate the possible variation between groups. The demographic part consisted of questions about gender, age, educational qualification, sector of the organization, working position and work experience. Such variables are widely used in organizational studies since they can assist in offering contextual interpretations of the way employees behave and experience the workplace (Hair et al., 2019).

Results

The findings of the study presented in this chapter involved investigations of the connections between digital detox interventions and employee productivity, employee well-being, and employee engagement in Pakistani organization settings. The researchers gathered data of 620 employees in diverse industries such as banking, IT, healthcare, education and telecommunication. The hypotheses of the study were tested with the help of SPSS which included descriptive statistics, reliability analysis, correlation, regression, and moderation analysis. The findings are organized in compliance with the APA standards, and the elaborate interpretation and discussion of the findings concerning previous literature are provided.

Table 1
Demographic Characteristics of Participants (N = 620)

Variable	Category	Frequency	Percentage (%)
Gender	Male	360	58.1
	Female	260	41.9
Age (years)	25–35	390	62.9
	36–45	180	29.0
	46+	50	8.1
Education	Bachelor's	310	50.0
	Master's/Postgraduate	310	50.0
Work Experience (years)	1–5	180	29.0
	6–10	250	40.3
	11–15	120	19.4
	16+	70	11.3
Organizational Sector	Banking	120	19.4
	IT/Telecom	160	25.8
	Healthcare	100	16.1

Education	120	19.4
Public Administration	120	19.4

The demographic information shows that there is a perfect gender ratio and the working population of the organization is mostly aged 25 to 35 years and are busy professionals involved in digital work. Even the bachelor and postgraduate degrees are equally represented, this is to create diversity in education levels. The experience of work is diverse, as it will give some idea regarding the employees at the beginning of their careers and the senior ones, which is essential in assessing the effectiveness of digital detox interventions at different levels of the hierarchy.

Table 2
Reliability Statistics for Study Variables (N = 620)

Variable	Number of Items	Cronbach's Alpha
Digital Detox Interventions	8	.87
Employee Productivity	9	.85
Employee Well-Being	5	.88
Employee Engagement (UWES-9)	9	.90

Cronbach Alpha was used to evaluate the internal consistency of the variables of the study. Table 2 shows that all the scales displayed high reliability with alpha ranging between the acceptable reliability level of .70 and above of between .85 to .90. The scale Digital Detox Interventions (8 items) was found to have a high internal consistency ($\alpha = .87$), meaning that the items in the scales are consistently measuring the construct, which is digital detox practices. On the same note, the reliability of the Employee Productivity scale (9 items) was high ($\alpha = .85$), and therefore, the items are likely to measure the construct of employee productivity reliably. The other scale, called the Employee Well-Being scale and comprising of 5 items had also the same internal consistency value of excellent i.e. $\alpha = .88$ indicating that the scale items measure employee well-being well. Also, the highest reliability among the study variables was detected in the scale of the Employee Engagement, which demonstrates a high level of internal consistency. The results are in line with a past study by Wilmar Schaufeli and others who found that the levels of reliability were also similar to those of the Utrecht Work Engagement Scale (UWES-9). On the whole, Cronbach alpha is large and the fact that the values are high indicates that scales applied in this research are reliable and can be further subjected to statistical analysis which could be correlation and regression analysis.

Table 3
Correlation Matrix of Study Variables (N = 620)

Variable	1	2	3	4
1. Digital Detox Interventions	1	1	1	1
2. Employee Productivity	.42**	1	1	1
3. Employee Well-Being	.56**	.47**	1	1
4. Employee Engagement	.48**	.44**	.50**	1

Note: **p < .01

Digital detox interventions had a positive and significant correlation with employee productivity ($r = .42, p < .01$), well-being ($r = .56, p < .01$), and engagement ($r = .48, p < .01$). This shows that employees that are highly involved in digital detox activities report increased productivity, better well-being, and engagement at work. The moderate correlations provide any meaningful relationship without any multicollinearity issues. These results coincide with the past studies that have shown that framed digital breaks decrease the cognitive load and improve performance (Reinecke et al., 2018; Syvertsen and Enli, 2019).

Table 4
Regression Analysis Predicting Employee Productivity (N = 620)

Predictor	B	SE B	β	t	p
Digital Detox Interventions	0.41	0.05	.42	8.20	<.001
Employee Engagement (Moderator)	0.21	0.04	.22	5.25	<.001
Interaction (Digital Detox × Engagement)	0.15	0.03	.17	4.80	<.001

Note: $R^2 = .37, F(3, 616) = 121.85, p < .001$

The effectiveness of the digital detox interventions had a significant effect on the productivity of the employees ($\beta = .42, p < .001$), which means that deliberate decreasing digital activity makes employees more efficient and productive. The interaction term was also significant ($\beta = .17, p < .001$), and the employee engagement was also positive ($\beta = .22, p < .001$), meaning that the more the employees are engaged, the greater the impact of digital detox on productivity. This supports the study presented by the JD-R model, as it proves that the benefits of recovery interventions are increased with the level of employee resources (engagement) (Bakker and Demerouti, 2017).

Table 5
Regression Analysis Predicting Employee Well-Being (N = 620)

Predictor	B	SE B	β	t	p
Digital Detox Interventions	0.53	0.04	.56	13.25	<.001
Employee Engagement (Moderator)	0.24	0.03	.26	7.00	<.001
Interaction (Digital Detox × Engagement)	0.11	0.02	.13	3.75	<.001

$R^2 = .44$, $F(3, 616) = 159.21$, $p < .001$

The interventions to digital detox were strongly correlated with the well-being of employees ($r = .56$, $p < .001$), showing that employees who periodically find some time out of digital devices exhibit greater psychological health and reduced stress levels. This was also mediated by engagement, which increased the positive impact of digital detox on well-being. These findings supplement other previous reports that structured recovery intervals play an essential role in cognitive as well as emotional rejuvenation within the stress-inducing digital work environments (Reinecke et al., 2018; WHO, 1998).

Overall, the authors discovered that digital detox programs have a positive correlation with employee productivity, well-being, and engagement in Pakistani firms. Regression analyses also demonstrated that employee engagement reinforces these relationships, as it is important to consider the individual motivational resources to ensure that the digital detox strategies are the most beneficial. The results can be attributed to the JD-R theoretical framework, which has proven that both organizational resources and individual engagement have a positive effect on work outcomes. Such findings have some practical application to Pakistani organizations, with the area of application being the adoption of structured digital detox policies to increase productivity, decrease stress load, and create a healthier and more engaged workforce. More so, employee engagement enhances the efficiency of these interventions, and there is a necessity to consider an integrated approach that would combine organizational and individual-level ones.

Discussion

The study findings in detail as the results of the quantitative analyses are interpreted with a sample of 620 employees operating in varied sectors in Pakistan. The researchers investigated how digital detox interventions affected employee productivity, well-being, and engagement; therefore, the moderating effect of employee engagement was considered. The discussion lays the results in connection with the previous studies, theories, and implications on the organization, which presents a full picture of how the structured disengagement with digital devices influences the workplace performance.

The researchers discovered that interventions of digital detox have a positive forecast on the productivity of employees (0.42, $p < .001$). Employees who consciously make habits of checking email fewer times, taking breaks without technology use, and scheduling to go offline record an increased efficiency and accomplishment of tasks. The results can be compared to previous studies that show that cognitive overload and distraction due to digital intermittency can be mitigated and allow individuals to work more effectively (Reinecke et al., 2018; Syvertsen and Enli, 2019). Regarding the Pakistani organizations, where employees tend to face high digital demands, particularly because of the intensive communication through WhatsApp, emails, and collaborative tools, digital detox practices represent the practical mechanism of improving concentration and performance. This is particularly true in industries such as the IT and banking sectors where multitasking in the digital medium is rife.

The findings also suggest the fact that digital detox interventions are closely connected with the well-being of the employees ($\beta = .56$, $p < .001$). Being the most engaged workers, reducing the digital activity by half, the staff members tend to experience less stress, feel more emotionally stable, and find their work more satisfying. These findings are consistent with the JD-R model that the interpretation of decreased work demands (in this case, digital overload) and increased the use of recovery resources leads to a better psychological well-being (Bakker and Demerouti, 2017). In Pakistani work environments, the length of working hours and the continuous digital connection make work stress and the risk of burnout. Digital detox is a possible protective measure, as it will allow employees to

replenish their cognitive and emotional resources and become more resilient and well in the long run (WHO, 1998).

The relationship between digital detox and productivity/well-being was greatly mediated by employee engagement. Digital detox practices had more benefits to employees who were more engaged. The given finding highlights the interactive nature of individual motivation and organizational resources and implies that engaged employees will be better able to utilize structured digital breaks to gain maximum performance and mental health. Engagement has also been noted by previous research as an important factor positively influencing recovery practices, with personal involvement, commitment, and enthusiasm being the primary factors that promote the effective use of practices aimed at working strains reduction (Schaufeli et al., 2006; Bakker and Demerouti, 2017). In practice, organizations should not just adopt policies of digital detox, but they need to create a culture that promotes engagement so that the maximum benefits can be obtained.

Theoretical Implications

The results are relevant to the Job Demands Resources (JD-R) theory, as they showed that digital detox behaviours serve as recovery-related job resources, which alleviate the adverse impact of digital overload. The high moderation of engagement supports the hypothesis that the individual level of motivational resources is engaged in the interaction with organizational interventions to the productivity and well-being expansion, adding to the JD-R model in the realm of modern digital workplaces. Moreover, the research contributes to the expanding field of literature on technostress and recovery interventions, which is supported by empirical data in the organizational setting of Pakistan that has not been previously represented in the literature on the topic that largely encompassed the work environment in the Western world (Tarafdar et al., 2019; Syvertsen and Enli, 2019). This underlines the intercultural universalism of digital detox interventions in handling the employee outcomes.

Practical Implications

The results of the study provide a number of applicable recommendations to organizations in Pakistan:

1. **Put in place Formed Digital Detox Programs:** Companies can also institute technology-free meetings, restrict post-office emails, and give workers set times of offline time to improve their productivity and health.
2. **Promote the Engagement of Employees:** The advantages of digital detox intervention can be enhanced by engagement programs like skills development, participative decision-making, and recognition programs.
3. **Sector-Specific Policies:** Sector-specific policy approaches should be used in high-demand sectors such as IT, banking and telecommunications to implement digital detox policies that minimize cognitive overload with the continuity of operations.
4. **Training and Awareness:** Employees would be trained about the psychological and performance advantages of digital detox, which would encourage them to self-care about the digital reduction practices.

Limitations

Although the study has some strong sides, it is necessary to admit that it has a number of limitations:

1. **Cross-Sectional Design:** The study was based on the cross-sectional design that restricts the possibility of drawing causal conclusions. Future studies ought to use longitudinal or experimental study designs to determine the causality between digital detox practice and outcomes.

2. **Self-Reported Measures:** The measurement was done by self-report questionnaires that can provide response biases, including social desirability. Reliability can be enhanced by the inclusion of objective measures, which may be performance indicators, or indicators of physiological stress.
3. **Cultural Context:** The study has been done over Pakistani organizations, and the results might not be generalized to other cultural or organizational settings. The research on differences in the effectiveness of digital detox can be conducted on a cross-cultural basis.
4. **Sector Representation:** Several sectors were also covered but some industries (e.g., manufacturing, retail) have been underrepresented. Generalization would be improved with a wider sampling of sectors.

Future Research Directions

Future research can build on the present research by:

1. Exploring the longitudinal outcomes of digital detox on employee outcomes through longitudinal designs.
2. Investigating the effects of various forms of digital detox interventions including social media breaks, app specific restrictions or mindfulness based digital disconnection.
3. The discussion of organizational culture and leadership styles as other moderators that affect the effectiveness of digital detox strategies.
4. Triangulation of findings by incorporating objective productivity measures and physiological measures of stress.

Conclusion

The current research adopted the effect of digital detox program on productivity and well-being among employees working in Pakistani organizations alongside the moderating effect of employee engagement. The prevalence of digital technologies in modern work environments has brought exposure to continuous communication, messages, and flow of information, which have subsequently exposed employees to more such information. Despite the beneficial impact of such technologies in terms of efficiency and connectivity, they lead to digital overloads and technostress, which adversely influence the concentration, emotional health, and work performance (Mark et al., 2018; Rosen et al., 2013). The results of the research have empirical evidence on the argument that the adverse outcomes can be mitigated by organized digital detox practices. The findings established that interventions linked to digital detox have a strong and positive correlation with employee productivity and psychological well-being. It was found that employees who deliberately restricted their digital device usage during working breaks or took organizational steps of digital detoxes were more prone to greater focus, efficiency, and emotional stability. These results are in agreement with the earlier studies that suggest that occasional time being offline with digital gadgets enables the employees to replenish cognitive resources, alleviate stress, and enhance their ability to undertake work tasks in an efficient manner (Reinecke et al., 2018; Syvertsen and Enli, 2019). Digital detox practices, in such a sense, serve as recovery strategies that alleviate cognitive overload and help employees to re-centre their mental faculties and resume their productivity.

The paper has also established that employee engagement is a relevant moderating factor in the connection between digital detox interventions and productivity results. Employees who were intensively involved in their work seemed to be in a better position to make use of digital downtime to have a productive impact on the renewed psychological resources on the better performance and motivation in their tasks. The finding aligns with the theoretical assumptions of the Job Demands Resources (JD-R) model that includes the idea

that job resources like recovery opportunities, supportive practices at the workplace can mitigate job demand consequences and improve employee engagement and performance (Bakker and Demerouti, 2017). As long as employees receive recovery opportunities and are highly engaged in their work, they will be in a better position to realize positive performance results.

The introduction of organized digital detox programs can be especially beneficial in the particular setting of the Pakistani organizations, in which the hierarchies, collectivist culture, and demands of constant responsiveness tend to augment the pressure of the digital world. The policies that may allow the employees to have a better balance between the digital connectivity and the psychological rest are the organizational policy like device-free meetings, planned no-email, and promoting mindful use of technology. These interventions might not only benefit the well-being of employees, but also lead to long-term productivity and organizational performance. On the whole, the present study helps to diversify the existing research on the topic of technology-related stress, digital well-being, and organizational productivity by offering empirical data on the issue in a non-Western setting. The results indicate that interventions of digital detox can serve as effective organizational solutions to the enhancement of the productivity, well-being, and engagement of employees in working environments that are technology-intensive. Future studies ought to take into account longitudinal and experimental research designs in investigating the causal relationships and looking into further organizational and cultural variables that determine the effectiveness of digital wellness interventions (Creswell and Creswell, 2018).

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