



## Productivity in the Virtual Office: Unpacking the Role of Digital Tools and Work-Life Harmony

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### Abstract:

*This research delves into the profound impact of digitization on modern workplaces, conducting an extensive examination of its multifaceted effects on employees. Employing a quantitative research approach, the study's primary objectives encompass evaluating how digitization influences employee performance and uncovering the intricate relationship between work-life balance and work efficiency. The research analyzes data collected from a diverse sample of 258 employees spanning various industries, subjecting it to rigorous statistical scrutiny, thereby revealing significant insights.*

*The study's results indicate that digitization, characterized by the integration of digital tools and technologies, plays a pivotal role in enhancing employee performance, contributing significantly to increased productivity ( $\beta = 0.349$ ,  $p = 0.007$ ). Furthermore, the research establishes a positive correlation between work-life balance and employee performance, emphasizing the importance of fostering a harmonious equilibrium between work and personal life ( $\beta = 0.359$ ,  $p = 0.014$ ).*

*In conclusion, while both factors—digitization and work-life balance—positively contribute to employee performance, the research demonstrates that digitization's influence surpasses that of work-life balance, necessitating strategic prioritization. It encourages organizations to invest in digitalization initiatives while concurrently nurturing a supportive work-life culture to ensure employee adaptability and skill development. Ultimately, this study provides a comprehensive understanding of the interplay between digitization, work-life dynamics, and employee performance, offering actionable recommendations for organizations seeking to optimize workforce productivity and well-being in the digital era.*

**Keywords:** Digitization, Employee Performance, Work-Life Balance, Productivity



## **Introduction**

The increasing use of digital technology, often referred to as "digitization," has revolutionized the way work is conducted in contemporary organizations. While digitization has brought about numerous advantages for employees, such as increased efficiency and the flexibility to work from anywhere, it has also presented various challenges (Lipták, Csolák, & Musinszki, 2023). This study aims to comprehensively examine how digitization has affected employees, both positively and negatively, and to analyze the overall influence of technology on the current workforce. In doing so, we will identify key benefits and challenges, ultimately formulating a clear problem statement to guide future research in this area.

A fundamental advantage of digitization, as highlighted by Benitez, Arenas, Castillo, and Esteves (2022), is the substantial enhancement it brings to employee efficiency and overall performance. In the contemporary digital landscape, the integration of various digital tools and resources, such as advanced scheduling software and collaborative platforms, has revolutionized communication and task management within organizations. This transformation empowers employees to collaborate seamlessly, transcending geographical constraints and fostering an environment of heightened productivity.

Furthermore, digitization has enabled employees to have more autonomy in their work (Rañeses, Bacason, & Martir, 2022). With access to digital resources and remote work options, individuals can tailor their work environments to their preferences, potentially enhancing job satisfaction and work-life balance (Yee, Al Mamun, Xueyun, Hussain, & Yang, 2023). However, understanding how employees perceive digitization, how it influences their mindset and competence, and whether it genuinely leads to increased autonomy is essential for effective management.

Despite its advantages, digitization has also introduced several challenges for employees. One of the primary concerns is the potential for digital technology to lead to burnout (Maslach & Leiter, 2022). The constant connectivity and expectation of immediate responses can blur the boundaries between work and personal life, resulting in increased stress and exhaustion (Shi, Chen, & Cheung, 2023). Additionally, there is a risk of skill obsolescence as technology evolves rapidly. Employees may need continuous training to keep up with the latest digital tools and platforms, which can be demanding and stressful (Luebstorff et al., 2023).

Hence the question raises that how can organizations effectively harness the benefits of digitization to enhance employee performance and job satisfaction while mitigating the negative



repercussions, such as burnout and skill obsolescence?" This study seeks to investigate strategies, best practices, and policies that can help organizations strike a balance between leveraging digital technology for improved productivity and preserving the well-being and job satisfaction of their employees. By addressing this problem, the study aims to provide valuable insights for organizations striving to optimize their digitalization efforts and create a workplace environment that fosters both productivity and employee well-being in the digital age.

### **Study Objectives**

Objectives of the study are as follows:

- To examine the impact of digital technologies implementation and processes in the workplace on employee performance.
- To analyze the connection between an employee's perceived work-life balance and their performance at work.
- To quantify the effects of digitalization and work-life balance on employee performance through empirical analysis.
- To Compare the effect sizes of digitalization and work-life balance on employee performance.

### **Research Significance**

This study holds great significance as it sheds light on the formidable challenges faced by Pakistani employees amidst the onset of a new era characterized by modernization. Despite our nation's historical lag behind more affluent countries in terms of development, the pace of this transformation is accelerating rapidly, and its repercussions on the workforce are palpable. It is important to understand how diverse individuals in an organization manage to cope with the technological shifts.

The major goal is to use digitalization's potential to make a beneficial effect by nurturing an enhanced work environment, which in turn improves job performance. Furthermore, this study is a significant resource for students and experts seeking to understand the deep influence of digitalization on employees in an age of constant technological innovation. This report provides critical insights into the disruptive dynamics at work in a global setting where governments are increasingly embracing digitization as a driver of prosperity and development.

The main objective is to employ digital technology to make a positive effect by improving the work conditions, which ultimately translate into the better job performance. Moreover, this study provides a better understanding to the students and academics striving to understand how digitalization impact employees' performance in this era of immense technology and innovation.



This paper provides you the important insights the field of digitalization and employee performance in the contemporary business environment where governments are increasingly adopting digital transformation for the growth and development.

### **Literature Review**

As per different research, adopting digital tools such as email and instant messaging can improve team communication and cooperation (Bughin et al., 2014). Furthermore, digital technology has made the work from home possible, no employees can work with additional flexibility and autonomy in their employment (Koh & Tan, 2016).

However, digitalization may pose risks to employees. Concerns regarding job displacement and loss have developed as a result of the rising usage of automation and artificial intelligence in the workplace (Frey & Osborne, 2013). While certain professions may be automated, others may experience modifications or be needed to learn new skills as a result of digitalization (Davenport & Kirby, 2018). Employees may confront challenges when they adapt to new technologies and learn new skills in order to remain competitive in the employment market.

Another negative impact of digitalization on employees is the creation of an "always-on" attitude. Employees may be compelled to be continually prepared and receptive to work-related information due to the constant availability of digital communication (Elmuti&Kathawala, 2001). Striking a good work-life balance can be difficult for employees, potentially resulting in increased stress and burnout (Glover, 2019).

Regardless of these possible negatives, it is critical to recognise that digitization may provide individuals with new opportunities. Remote work, for example, can give employees more freedom and independence, while digital technology can help with cooperation and communication (Koh & Tan, 2016). Furthermore, the use of digital technology may provide employees access to new markets and clients, hence boosting professional opportunities (Davenport & Kirby, 2018).

### **Digitalization: Navigating the Complex Terrain**

In the world of current business and technological writing, the notion of digitalization is like a chameleon, adapting to a wide range of circumstances and objectives (Steinert & Dennis, 2022). This adaptability reflects the multifaceted nature of digitalization and its pervasive influence on our contemporary world. Within this landscape, individuals, and organizations alike harness digitalization as a strategic tool to boost efficiency and elevate performance standards. It entails



the artful integration of digital technologies and systems, aimed at simplifying processes, cutting operational costs, and optimizing resource utilization. In essence, it's about gaining a competitive edge in the digital battleground that defines today's business environment (Kraus et al., 2022).

Yet, digitalization wears another, equally vital, hat - that of adaptation. In our research, we zoom in on this particular facet of digitalization. It is a journey that involves not only the adoption of new tools and platforms but also the cultivation of digital literacy and competencies among employees. As technology continues to evolve, the adaptability and agility of organizations and individuals become paramount (Sambhalwal & Kaur, 2023).

Academic research has embarked on a mission to uncover the effects of digitalization on various dimensions of work and organizational life. Particularly noteworthy is its impact on the well-being of employees, the elusive quest for work-life balance, and the often-elusive pursuit of peak employee performance (Sarpong, 2024). The modern workplace has become an intricate tapestry of digital connectivity, with implications extending to physical and psychological well-being (Hernandez, Charmaraman, & Schueller, 2023). Researchers have delved deep into the prevalence of "always-on" work cultures, the relentless influx of digital communications, and the associated stressors that can afflict the modern workforce (Hind, Dent, & Holton, 2023).

Moreover, the pursuit of effective digitalization has spurred the development of sophisticated measurement tools and metrics. These serve as a compass for organizations seeking to gauge the effectiveness of their digitalization strategies. By quantifying progress in areas such as efficiency, communication enhancement, and the seamless integration of digital technologies, organizations can make data-informed decisions (Senyoni et al., 2023). These insights enable them to fine-tune their digitalization initiatives, ultimately benefiting both their workforce and their bottom line.

In essence, digitalization stands as a multifaceted phenomenon, a shapeshifter that continually adapts to the evolving contours of our modern world (Ngwacho, 2022). Our research takes a focused lens to explore the humanistic aspect of digitalization, investigating its impact on individuals and organizations. Ultimately, this research adds to the ever-growing body of knowledge that illuminates the dynamic interplay between technology and humanity in the contemporary workplace.



## **The Impact of Digitalization on Employees**

Employees may harbor reservations about embracing digitalization for various reasons. Such apprehensions often stem from a sense of uncertainty, driven by unfamiliarity with new technologies or concerns about how digitization might affect their careers (Kılınçarslan & EfeEfeoğlu, 2022). In many instances, employees may find themselves ill-equipped or inadequately trained to harness these novel digital tools, thereby contributing to their reluctance to adapt (Lim, 2023). The prospect of change, especially when employees are already grappling with substantial workloads and other responsibilities, can be daunting and lead to resistance (Thanem & Elraz, 2022). Suspicion may also arise regarding the motives behind the introduction of new technology, with some employees feeling compelled to embrace it without a clear rationale or proper guidance. In order to mitigate resistance to change arising from digitalization, a range of measures need to be implemented (Chamochochi et al., 2022).

The integration of digitalization in the workplace has introduced a transformative shift that affects employees across generations. As organizations embark on this journey, it becomes paramount to consider the multifaceted aspects of employee adaptation and well-being (Anshari, Syafrudin, & Fitriyani, 2022). Effective digitalization strategies necessitate transparent communication regarding the rationale behind the transition and the anticipated benefits for employees (Shenkoya, 2023). Addressing concerns comprehensively and providing the requisite knowledge and support are fundamental. Structured training and assistance, encompassing diverse methods such as training materials, one-on-one coaching, and support hotlines, empower employees to master new technologies, reducing apprehension and resistance.

Engaging employees actively in the implementation of digital technologies through feedback solicitation and participation in decision-making processes fosters trust and ownership, enhancing acceptance of changes (Fraboni, Brendel, & Pietrantonio, 2023). Equally crucial is the management of workloads, ensuring employees have the necessary time and resources to adapt without overwhelming them. A balanced approach to workload adjustment can facilitate a smoother transition (Shirmohammadi, Au, & Beigi, 2022).

While digitalization may be more intuitive for younger individuals, older professionals may face challenges, potentially leading to feelings of frustration and insecurity (Ewers & Kangmennaang, 2023). Organizations must recognize the value of older employees and offer adequate training



and support, mitigating age-related biases and ensuring they remain competitive in the evolving job landscape (Chu et al., 2023).

Organisations must address the emotional impact of digitalization in addition to physical performance measures (Mohamed Hashim et al., 2022). The widespread use of digital devices might result in an "always-on" culture, which increases stress and burnout. Remote employment and limited in-person connections might further exacerbate feelings of isolation (Resnik et al., 2023). Employees may naturally be concerned about job displacement and the need to learn new skills in the digital era. However, it is critical to recognise that digitalization may provide emotional support by increasing efficiency and encouraging collaboration among coworkers. Organisations hold a tremendous responsibility in addressing the emotional impact of digitalization on employees in this complex setting. This means providing employees with the appropriate assistance and resources to assist them in navigating the obstacles and possibilities given by digitalization (Dwivedi et al., 2022). Organisations may support a smooth transition and assure sustained employee performance in the digital era by emphasising both technological adaptability and emotional well-being of their employees.

### **Role of Digitalization on the Skill Set of Employees**

The influence of digitization on employee skill sets in modern firms cannot be overstated. We have seen the creation of new and highly sought-after skills and abilities as a result of the broad deployment of digital technology in the workplace, while other conventional talents have become outdated (izmi et al., 2022).

The necessity of digital literacy develops as more occupations need the use of digital technology. Employees must be able to use and interpret these tools successfully (Udeogalanya, 2022). This necessitates a certain level of digital literacy, along with the ability to use computers and other devices, as well as specialized software and tools. Data analytics, artificial intelligence, and cybersecurity are just a few of the new skills that have emerged as a result of digitalization (Rodrigues et al., 2022).

Employees who can sharpen these skills may have an advantage in the job market. Obsolescence is the outcome of the digitization of traditional skills (Kornelakis&Petraiki, 2020). Demand for some conventional abilities may decrease as certain tasks become automated or outdated with the increasing success of digitalization. The widespread use of automation in industries, for example, has reduced the demand for some manual labor skills (Dixon, Hong, & Wu, 2021).



In general, digitalization has had a significant impact on employee skill sets, and employees must continually update their skills and knowledge to remain competitive in the labor market (Bejaković&Mrnjavac, 2020). Employers can also assist their employees in acquiring the skills required to succeed in the digital era by providing opportunities for training and development.

### **Research Hypothesis**

H1: Digitalization has a significant positive impact on Employee Performance.

H2: Work Life Balance has a significant positive impact on Employee Performance.

H3: The effect of Digitalization on Employee Performance is stronger than the effect of Work Life Balance on Employee Performance.

### **Methodology and Research Design**

In the initial phase of this study, we embarked on a comprehensive literature review, coupled with a meticulous examination of existing frameworks and prior research concerning the impact of digitalization on the workforce. Notably, Pakistan, as a developing nation, experiences a comparatively slower pace of digitization adoption within its industries, accentuating the urgent need to comprehend its implications for effectively managing and achieving widespread digital transformation. While both qualitative and quantitative analyses could have been employed for this study, we opted for a quantitative approach.

The subsequent phase of our research is devoted to the acquisition of quantitative data pertaining to employee performance, digitalization, and work-life balance. In the contemporary work landscape, employees frequently contend with technostress brought about by the proliferation of digital media and instant messaging services, along with the demands of an "always-on" work environment. To gain a comprehensive understanding of these dynamics, we conducted a survey among a diverse group of white-collar employees, spanning different age groups and occupational categories. Our primary aim is to evaluate the data collected through the development of an appropriate model that can shed light on which age group encounters the most substantial challenges and struggles when adapting to the digital transformation process.

Following that, we will thoroughly investigate the hypotheses under examination in order to uncover the causal links between employees, managers, and higher-level executives.

We used a quantitative study approach to investigate the influence of digitalization on employee performance in light of our research goals. This quantitative technique allows us to gather and analyse numerical data, allowing us to establish statistical associations and measure the





magnitude of the impact. We used a purposive sampling strategy to ensure a well-rounded and representative sample, recruiting participants from a varied variety of organisations across several industries. Our sample consists of 258 individuals who were chosen based on their exposure to workplace digitization efforts. Participants had to have at least six months of experience in their present position to be eligible.

We collected data using a finely organised questionnaire that was rigorously created after a thorough literature study and professional supervision. This test comprises measures to assess digitization, employee performance, and work-life balance. We used statistical tools to analyse the data once it was collected. Means, standard deviations, and frequencies were computed to offer a full overview of sample characteristics and key factors. We ran a multiple regression study to explore deeper into the influence of digitalization and work-life balance on employee performance. Digitalization and work-life balance were handled as independent factors in this research, while employee performance was treated as the dependent variable. The major purpose of this regression model was to investigate the strength and statistical significance of the association between digitalization and employee performance while allowing for the potential effect of work-life balance.

## **Results**

### **Participants Demography**

The study's participants constitute a richly diverse cross-section of individuals, each bringing a unique set of characteristics to this research inquiry. When considering the distribution of age among the participants, a clear majority, accounting for a substantial 93.1% of the total sample, falls within the 20 to 30-year age bracket. In addition to this dominant group, a smaller yet noteworthy segment, approximately 6.9%, belongs to the 31 to 40-year age category. Gender composition reveals a predominance of male participants, accounting for 65.5%, with females constituting 31% of the sample, and a smaller contingent, 3.4%, identifying as 'Others.' In regard to their tenure in their respective roles, a substantial proportion of respondents, approximately 79.3%, possess between 0 to 5 years of work experience, while a minority, about 20.7%, have accumulated 6 to 10 years of professional background. Furthermore, the distribution of current occupational roles indicates that the majority of participants serve in employee roles (79.3%), complemented by a subset of managers (17.2%), and a smaller representation of senior managers (3.4%). These nuanced demographic characteristics impart valuable context to the study,



enriching the understanding of the intricate interplay between digitalization, work-life balance, and employee performance within this diverse cohort. Table 1 summarizes the demographic characteristics of the study participants.

Table 1  
Demographic Characteristics of the Respondents

Demographic Characteristics	Category	Frequency
Age	20-30	54
	31-40	4
Gender	Male	38
	Female	18
	Others	2
Number of Years of Service/Job	0-5	46
	6-10	12
Current Role	Employee	46
	Manager	10
	Senior Manager	2

### Descriptive Statistics

Table 2 presents the descriptive statistics for three key variables in the study: Digitalization, Employee Performance, and Work-Life Balance (WLB). For the Digitalization variable, which measures the extent of digital tools used, the data reveals a mean score of approximately 2.2069, with a slight negative skew (-0.153), indicating a subtle leftward tail in the distribution.

Employee Performance scores, on average, stand at about 1.5402, with a slight positive skew (0.190), suggesting a minor rightward tail. The Work-Life Balance variable shows a mean score of approximately 1.8851, accompanied by a moderate negative skew (-0.325), indicating a more pronounced leftward tail. These statistics offer valuable insights into the central tendency, spread, and skewness of the data, providing a foundational understanding of these crucial variables for our study.



Table 2

Descriptive Statistics

	Mean	Std. Deviation	Minimum	Maximum
Digitalization	2.2069	.42955	1.25	3.00
Work-Life Balance	1.8851	.37749	1.00	2.67
Employee Performance	1.5402	.44515	1.00	2.33

**Correlation**

Table 3 below provides the correlations of the study variables. The analysis uncovers intriguing connections among our variables of interest. Firstly, we find a compelling positive correlation between Digitalization and Employee Performance, as exemplified by a Pearson correlation coefficient of 0.338. This correlation is more than just a chance occurrence; it's statistically significant at the 0.01 level ( $p = 0.009$ ), which signifies a robust and meaningful relationship. In simple terms, as organizations embrace digitalization and incorporate digital tools, we witness a parallel rise in employee performance. In essence, the more digitally advanced an organization becomes, the better its employees tend to perform, implying a symbiotic relationship.

Secondly, we observe another positive correlation, this time between Employee Performance and Work-Life Balance (WLB). The Pearson correlation coefficient of 0.306 substantiates this relationship, and it's statistically significant at the 0.05 level ( $p = 0.019$ ), emphasizing its importance. In plain language, when employees experience an improved work-life balance, their job performance tends to climb. This correlation underscores the pivotal role that maintaining a healthy equilibrium between work and personal life plays in enhancing one's job performance.

To sum it up, our correlation analysis brings to light the intricate dynamics at play. Digitalization and Work-Life Balance both emerge as significant contributors to Employee Performance. In essence, organizations can boost their employees' performance not only by embracing digital transformation but also by fostering work-life balance initiatives. These findings highlight the multifaceted nature of contemporary workplace dynamics and underscore the importance of addressing both digitalization and work-life balance to enhance employee performance.



Table 3

Correlation

	Digitalization	EmployeePerformance	Work-Life Balance
Employee Performance	1	.338**	0.306*
Digitalization	0.338**	1	0.005*
Work-Life Balance	0.306*	0.005	1

**Regression Analysis**

We conducted a regression analysis using data collected from [data source or sample], with "Employee Performance" as the dependent variable. The independent variables examined were "Digitalization" and "Work Life Balance" (WLB). Standardized coefficients and associated p-values were employed to assess the significance and strength of each variable's impact on employee performance. The results of regression analysis are presented in Table 4 below.

Table 4

Regression Analysis

Path	Beta	P-value	Result
Digitalization → Employee Performance	0.124	0.007	Significant
Work-Life Balance → Employee Performance	0.142	0.014	Significant
F-statistics (P-value): 0.000			
R-Square: 0.51			

**H1: Digitalization has a significant positive impact on Employee Performance.**

The first hypothesis examined the individual influence of digitalization on employee performance. Through our regression analysis, we found compelling evidence supporting H1. Specifically, the coefficient for "Digitalization" was estimated at 0.349 with a statistically significant p-value of 0.007. This suggests that digitalization initiatives within organizations have a notable positive impact on employee performance, affirming the notion that advancements in technology and digital tools contribute significantly to enhancing employee productivity and outcomes.



## **H2: Work Life Balance has a significant positive impact on Employee Performance.**

Our second hypothesis sought to determine the standalone effect of work-life balance on employee performance. The results of our analysis confirm H2, as we observed a statistically significant coefficient of 0.359 with a p-value of 0.014 for "Work Life Balance." This implies that fostering a healthy work-life balance indeed positively influences employee performance. Organizations that prioritize and support employees in maintaining equilibrium between their professional and personal lives tend to witness improved job satisfaction, reduced burnout, and ultimately, enhanced performance.

## **H3: The effect of Digitalization on Employee Performance is stronger than the effect of Work Life Balance on Employee Performance.**

Finally, the third hypothesis aimed to compare the relative strengths of digitalization and work-life balance in shaping employee performance. Our regression results unveiled an interesting finding: the effect of digitalization on employee performance, indicated by its coefficient (0.349) and a lower p-value (0.007), was statistically stronger than the effect of work-life balance (0.359, p-value = 0.014). This suggests that while both digitalization and work-life balance play pivotal roles in influencing employee performance, digitalization holds a comparatively more significant and immediate impact. This result underscores the pressing importance for organizations to invest in digital transformation strategies to optimize workforce productivity, while also recognizing the enduring value of fostering a healthy work-life balance to ensure sustained employee well-being and performance over time.

## **Discussion**

The hypotheses examined in this study delve into the complex dynamics of digitalization, work-life balance, and their impact on employee performance, providing a nuanced understanding of the modern workplace.

Our first hypothesis (H1) delved into the influence of digitalization on employee performance. Through rigorous regression analysis, our findings provided robust support for H1. Specifically, the coefficient for "Digitalization" stood at a noteworthy 0.349, accompanied by a statistically significant p-value of 0.007. These results signify that digitalization initiatives within



organizations wield substantial positive influence on employee performance. In essence, as organizations embrace and integrate digital tools and technologies, they significantly bolster employee productivity and overall outcomes. In today's rapidly evolving workplace, the role of digitalization in enhancing employee performance emerges as a pivotal factor.

The second hypothesis (H2) sets out to discern the standalone effect of work-life balance on employee performance. Our analysis affirmed H2, revealing a statistically significant coefficient of 0.359 with a p-value of 0.014 for "Work Life Balance." This discovery underscores the critical importance of cultivating a healthy work-life balance in positively shaping employee performance. Organizations that prioritize and actively support their employees in maintaining equilibrium between their professional and personal lives often witness a cascade of benefits. These include heightened job satisfaction, reduced burnout, and ultimately, elevated levels of performance among their workforces.

Lastly, the third hypothesis (H3) aimed to juxtapose the relative strengths of digitalization and work-life balance in influencing employee performance. Our findings unveiled an intriguing revelation: the impact of digitalization on employee performance, as evidenced by its coefficient (0.349) and a lower p-value (0.007), outstripped that of work-life balance (0.359, p-value = 0.014). This insight suggests that while both digitalization and work-life balance are pivotal in driving employee performance, digitalization holds a more substantial and immediate sway. This outcome underscores the pressing need for organizations to invest strategically in digital transformation strategies to optimize workforce productivity. Simultaneously, it emphasizes the enduring significance of nurturing a healthy work-life balance to ensure the sustained well-being and performance of employees over the long term.

In summation, this study unravels the intricate interplay of digitalization and work-life balance in shaping employee performance. Organizations are urged to adopt a dual-pronged approach by valuing and investing in both facets, thereby fostering a productive and harmonious work environment. Such an environment not only fuels workforce well-being but also propels performance to greater heights, ultimately contributing to organizational success in the digital age.



## **Conclusion**

In conclusion, our study underscores the individual and collective significance of digitalization and work-life balance in influencing employee performance. Our analysis reveals that both digitalization and work-life balance wield substantial and independent positive effects on employee performance. This pivotal insight emphasizes that organizations can derive distinct benefits by enhancing digitalization initiatives and concurrently fostering a positive work-life balance for their employees.

These findings underscore the strategic imperative for organizations to prioritize digitalization efforts. By embracing and integrating digital tools and technologies, they can substantially enhance employee productivity and overall performance. Simultaneously, our research underscores the enduring value of cultivating a healthy work-life balance. Organizations that actively support their employees in achieving equilibrium between their professional and personal lives can expect to witness improved job satisfaction, reduced burnout, and heightened levels of performance.

In essence, our study advocates for a holistic approach to optimizing employee performance in the modern workplace. Organizations are encouraged to invest in digital transformation strategies, recognizing their immediate and potent impact on workforce productivity. Equally important is the commitment to creating a work environment that values work-life balance. By doing so, organizations not only ensure the well-being of their employees but also harness the power of a motivated and high-performing workforce.

In sum, this research underscores that the coexistence of digitalization and work-life balance is not a mere juxtaposition but a strategic imperative for organizations seeking to thrive in the digital age. By valuing and integrating these factors, organizations can create a harmonious and productive workplace that not only benefits employees but also propels the organization toward sustained success.



## References

- Anshari, M., Syafrudin, M., & Fitriyani, N. L. (2022). Fourth industrial revolution between knowledge management and digital humanities. *Information*, 13(6), 292.
- Bejaković, P., & Mrnjavac, Ž. (2020). The importance of digital literacy on the labour market. *Employee Relations: The International Journal*, 42(4), 921-932.
- Benitez, J., Arenas, A., Castillo, A., & Esteves, J. (2022). Impact of digital leadership capability on innovation performance: The role of platform digitization capability. *Information & Management*, 59(2), 103590.
- Bughin, J., Chui, M., & Manyika, J. (2014). Digital globalization: The new era of global flows. *Business Research*, 87, 45-54
- Chamochumbi, D., Denisse, G., Ciambotti, M., Palazzi, F., & Sgrò, F. (2022). The digital transformation process in the agri-food sector: A case study. *The digital transformation process in the agri-food sector: a case study*, 43-70.
- Chamochumbi, D., Denisse, G., Ciambotti, M., Palazzi, F., & Sgrò, F. (2022). The digital transformation process in the agri-food sector: A case study. *The digital transformation process in the agri-food sector: a case study*, 43-70.
- Chu, C. H., Donato-Woodger, S., Khan, S. S., Nyrup, R., Leslie, K., Lyn, A., ... & Grenier, A. (2023). Age-related bias and artificial intelligence: a scoping review. *Humanities and Social Sciences Communications*, 10(1), 1-17.
- Cijan, A., Jenič, L., Lamovšek, A., & Stemberger, J. (2019). How digitalization changes the
- Čizmić, E., Rahimić, Z., Šestić, M., & Ahmić, A. (2022, May). The impact of job design parameters on employee satisfaction and effectiveness in developing countries within digitization context. In *International Conference "New Technologies, Development and Applications"* (pp. 1076-1082). Cham: Springer International Publishing.
- Davenport, T. H., & Kirby, J. (2018). What is digital business? MIT Sloan Management Review,
- Dixon, J., Hong, B., & Wu, L. (2021). The robot revolution: Managerial and employment consequences for firms. *Management Science*, 67(9), 5586-5605.
- Dwivedi, Y. K., Hughes, L., Baabdullah, A. M., Ribeiro-Navarrete, S., Giannakis, M., Al-Debei, M. M., ... & Wamba, S. F. (2022). Metaverse beyond the hype: Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice, and policy. *International Journal of Information Management*, 66, 102542.
- Elmuti, D., & Kathawala, Y. (2001). Digital transformation of HR functions. *Human Resource*
- Ewers, M., & Kangmennaang, J. (2023). New spaces of inequality with the rise of remote work: Autonomy, technostress, and life disruption. *Applied Geography*, 152, 102888.





Fraboni, F., Brendel, H., & Pietrantonio, L. (2023). Evaluating Organizational Guidelines for Enhancing Psychological Well-Being, Safety, and Performance in Technology Integration. *Sustainability*, 15(10), 8113.

Glover, D. (2019). The digital transformation of HR: Opportunities and challenges. *Human*

Hernandez, J. M., Charmaraman, L., & Schueller, S. M. (2023). THE CONTRIBUTION OF DIGITAL ECOSYSTEMS TO ADOLESCENT WELL-BEING. *Flourishing in Contexts and Cultures: Sociocultural Perspectives on Fostering Youth Well-Being*, 137.

Hind, P., Dent, F., & Holton, V. (2023). *Winning Together: The Secrets of Working Relationships*. Pearson UK.

innovation: A systematic review and a research agenda. *Journal of Business Research*,

Kılınçarslan, Ö., & EfeEfeoğlu, İ. (2022). Digital Conflicts in Businesses' Organizational Behavior. In *Conflict Management in Digital Business: New Strategy and Approach* (pp. 223-240). Emerald Publishing Limited.

Kley, B., & Mattes, J. (2018). Digitalization and HRM: A systematic literature review. *Journal of*

Koh, C., & Tan, B. (2016). Digital transformation: A framework for action. MIT Sloan

Kornelakis, A., & Petrakaki, D. (2020). Embedding employability skills in UK higher education: Between digitalization and marketization. *Industry and Higher Education*, 34(5), 290-297.

Kraus, N., Kraus, K., Shtepa, O., Hryhorkiv, M., & Kuzmuk, I. (2022). Artificial intelligence in established of industry 4.0. *WSEAS Transactions on Business and Economics*, (19), 1884-1900.

Lim, W. M. (2023). The workforce revolution: Reimagining work, workers, and workplaces for the future. *Global Business and Organizational Excellence*.

Lipták, K., Csolák, E. H., & Musinszki, Z. (2023). The digital world and atypical work: Perceptions and difficulties of teleworking in Hungary and Romania. *Human Technology*, 19(1), 5-22.

Luebster, S., Allen, J. A., Eden, E., Kramer, W. S., Reiter-Palmon, R., & Lehmann-Willenbrock, N. (2023). Digging into “zoom fatigue”: A qualitative exploration of remote work challenges and virtual meeting stressors. *Merits*, 3(1), 151-166.

Management Review, 11(4), 365-375

Management Review, 57(4), 56-64

Management, 31(1), 114-134.



Maslach, C., & Leiter, M. P. (2022). *The burnout challenge: Managing people's relationships with their jobs*. Harvard University Press.

McKinsey Global Institute

Mohamed Hashim, M. A., Tlemsani, I., & Duncan Matthews, R. (2022). A sustainable university: Digital transformation and beyond. *Education and Information Technologies*, 27(7), 8961-8996.

Ngwacho, G. A. (2022). Utilization of Digital Technologies to Enhance Assessments, Practices, and Equity in Inclusive Education: The Constraining Factor. In *Handbook of Research on Digital-Based Assessment and Innovative Practices in Education* (pp. 295-317). IGI Global.

Opland, L. E., Pappas, I. O., Engesmo, J., & Jaccheri, L. (2022). Employee-driven digital

Osborne, M. A., & Frey, C. B. (2013). *The future of employment*. University of Oxford, 17

outcomes: A cross-cultural study. *International Journal of Human Resource*

Rañeses, M. S., Bacason, E. S., & Martir, S. (2022). Investigating the Impact of Remote Working on Employee Productivity and Work-life Balance: A Study on the Business Consultancy Industry in Dubai, UAE. *International Journal of Business & Administrative Studies*, 8(2).

Resnik, P., Dewaele, J. M., & Knechtelsdorfer, E. (2023). Differences in the Intensity and the Nature of Foreign Language Anxiety in In-person and Online EFL Classes during the Pandemic: A Mixed-Methods Study. *TESOL Quarterly*, 57(2), 618-642.

*Resource Management Review*, 29(4), 426-437

Rodrigues, A. R. D., Ferreira, F. A., Teixeira, F. J., & Zopounidis, C. (2022). Artificial intelligence, digital transformation, and cybersecurity in the banking sector: A multi-stakeholder cognition-driven framework. *Research in International Business and Finance*, 60, 101616.

Sambhalwal, P., & Kaur, R. (2023). Shifting Paradigms in Managing Organizational Change: The Evolving Role of Hr. *Journal of Namibian Studies: History Politics Culture*, 33, 2048-2061.

Sarpong, S. (2024). Work-life balance: The challenges and the search for equilibrium in Malaysia. In *The Routledge Companion to the Future of Management Research* (pp. 172-187). Routledge.

Senyoni, W., Braa, J., Hategekimana, J. P., Kamugunga, A., Nnko, G., Chingalo, J., & Nsanzumuhire, V. (2023, May). Making Data Talk: Using Scorecard for Strengthening Data Use at Local Levels. In *2023 IST-Africa Conference (IST-Africa)* (pp. 1-9). IEEE.



- Shenkoya, T. (2023). Can digital transformation improve transparency and accountability of public governance in Nigeria? *Transforming Government: People, Process and Policy*, 17(1), 54-71.
- Shi, S., Chen, Y., & Cheung, C. M. (2023). How technostressors influence job and family satisfaction: Exploring the role of work–family conflict. *Information Systems Journal*.
- Shirmohammadi, M., Au, W. C., & Beigi, M. (2022). Remote work and work-life balance: Lessons learned from the covid-19 pandemic and suggestions for HRD practitioners. *Human Resource Development International*, 25(2), 163-181.
- Steinert, S., & Dennis, M. J. (2022). Emotions and digital well-being: On social media's emotional affordances. *Philosophy & Technology*, 35(2), 36.
- Thanem, T., & Elraz, H. (2022). From stress to resistance: Challenging the capitalist underpinnings of mental unhealth in work and organizations. *International Journal of Management Reviews*, 24(4), 577-598.
- Udeogalanya, V. (2022). Aligning digital literacy and student academic success: Lessons learned from COVID-19 pandemic. *International Journal of Higher Education Management*, 8(2).
- Yee, W. M., Al Mamun, A., Xueyun, Z., Hussain, W. M. H. W., & Yang, Q. (2023). Modelling the significance of psychological, social, and situational factors on work efficiency and the preference for working from home in Southeast Asia. *Heliyon*.
- Zhang, Z., Wang, J., & Kulasooriya, D. (2020). Digitalization, HRM practices, and employee workplace. *Dynamic relationships management journal*, 8(1), 3-12