Published by LPMP Imperium
Journal homepage: https://ejournal. imperiuminstitute.org/index.php/SERAMBI

The impact of digital workplace spirituality on innovative work behavior among millennial workers: The moderating role of digital skills

Suhada Suhada *, Aris Kusumo Diantoro, Annisa Wardatul Jannah, Riska Valya, & Dwi Trianti

Department of Management, Faculty of Economics, Universitas Nahdlatul Ulama Yogyakarta, Yogyakarta, Indonesia

SERAMBI
127

Abstract
This study investigates how digital workplace spirituality (DWS) influences innovative work behavior (IWB) among employees, with a focus on the moderating role of digital skills (DS) amid ongoing digital transformation in the post-pandemic era. Using a quantitative survey approach, the research involved 250 millennial remote workers in Sleman Regency and Yogyakarta City. Data analysis employed Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that DWS significantly and positively impacts IWB. Additionally, DS positively influences DWS and acts as a moderator in the DWS-IWB relationship. However, DS does not directly affect IWB. These results highlight the vital role of digital skills in enhancing workplace spirituality and fostering innovative behavior. Introducing DS as a novel construct in the DWS-IWB relationship provides new insights into workplace spirituality, especially in digital contexts.

Public interest statements
The article will provide valuable insights into applying a holistic approach that can offer a competitive advantage and ensure that your organization is well-positioned to thrive and innovate in an increasingly complex world.

Received 7/22/2024
Revised: 8/30/2024
Accepted: 8/31/2024
Online First 8/31/2024

Keywords: *Digital Workplace; Spirituality; Work Innovative; Digital Skill; Work from Anywhere*

Paper type: Research paper

Corresponding:
Name: Suhada
Email: suhada@unu-jogja.ac.id.

SERAMBI: Jurnal Ekonomi Manajemen dan Bisnis Islam, Vol 6, No. 2, 2024, 127-142
eISSN 2685-9904

DOI: *https://doi.org/10.36407/serambi.v6i2.1410*
Published by LPMP Imperium

Abstrak

Penelitian ini menyelidiki bagaimana spiritualitas tempat kerja digital (DWS) memengaruhi perilaku kerja inovatif (IWB) di kalangan karyawan, dengan fokus pada peran moderasi keterampilan digital (DS) di tengah transformasi digital yang sedang berlangsung di era pasca-pandemi. Dengan menggunakan pendekatan survei kuantitatif, penelitian ini melibatkan 250 pekerja jarak jauh milenial di Kabupaten Sleman dan Kota Yogyakarta. Analisis data menggunakan Partial Least Squares Structural Equation Modeling (PLS-SEM), Confirmatory Factor Analysis (CFA), dan Cronbach's Alpha. Temuan menunjukkan bahwa DWS berdampak signifikan dan positif terhadap IWB. Selain itu, DS berpengaruh positif terhadap DWS dan bertindak sebagai moderator dalam hubungan DWS-IWB, meskipun DS tidak berdampak langsung pada IWB. Hasil ini menyoroti peran penting keterampilan digital dalam meningkatkan spiritualitas tempat kerja dan mendorong perilaku inovatif. Memperkenalkan DS sebagai konstruk baru dalam hubungan DWS-IWB memberikan wawasan baru tentang spiritualitas tempat kerja, terutama dalam konteks digital. Penelitian ini menyarankan agar organisasi mengembangkan budaya kerja digital yang mendukung baik spiritualitas maupun inovasi, memberikan panduan berharga untuk mempromosikan inovasi di era digital.

Pernyataan kepentingan publik

Artikle ini sangat penting bagi para peneliti, konsultan, manajer SDM senior, dan direktur, penelitian dan para mahasiswa dibidang SDM. Penelitian ini menawarkan perspektif unik tentang pengembangan budaya kerja yang mengintegrasikan keterampilan digital dengan pertumbuhan spiritual. Artikel ini akan memberikan pengetahuan berharga tentang penerapan pendekatan holistik yang dapat menawarkan keunggulan kompetitif, memastikan bahwa organisasi Anda berada dalam posisi yang baik untuk berkembang dan berinovasi di dunia yang semakin kompleks

Introduction

The paradigm change from wealth maximization and economic growth to organizational sustainability and comprehensive corporate growth is the main emphasis of the study challenge. This change makes the study of workplace spirituality (WPS) a crucial topic for the twenty-first century (Werner & Stoner, 2018;Aboobaker et al., 2020). The number of remote workers has increased, from about 4% prior to the pandemic to 41% during the epidemic and today at 23%. This has led to the emergence of new issues (Dimas Jarot Bayu,2021). The use of digital platforms to change distant work patterns has become the new standard and trend, necessitating the development of digital skills and the adaptation of work culture to digital platforms (Modgil et al., 2022).

A "digital workplace" is an office setting where the main focus is on using digital technology to share information, collaborate, and communicate with coworkers (Haddud & McAllen, 2018). According to a study on the subject, three different digital workplace designs were investigated. People-centered design promotes various degrees of interaction among coworkers to produce and share information, while process-centered design encourages teamwork for business improvement projects and integration with other systems and processes (Williams & Schubert, 2018). With the presence of a digital workplace, employees

can collaborate and work flexibly(Lee & Joseph Sirgy, 2019; Lee & Joseph Sirgy, 2019), communicate, work anytime and anywhere (Work from Anywhere), which ultimately leads to increased productivity (Mićić et al., 2022). But adjusting to new ways of thinking and working are only a few of the problems that arise from the difficulties of working in a digital workplace (Vallo Hult & Byström, 2022) to the potential emergence of addiction factors resulting in no time for rest, as well as ethical issues and criminal risks in other cyber areas (Kokshagina & Schneider, 2023;Kokshagina & Schneider, 2023). Based on this background, the researcher is interested in developing research hypotheses on the related topic of the role of digital skills (DS) in digital workplace spirituality and innovative work behavior of employees. Since most of the workforce consists of millennials, this study will focus on this demographic group.

The purpose of this study is to assess how digital skills (DS) affect the relationship between innovative work behavior (IWB) and workplace spirituality. This study's goal is to evaluate the suitability of workers' digital skill (DS) levels and how they affect the connection between innovative work behavior (IWB) and workplace spirituality. The COVID-19 epidemic has brought to light the need of utilizing digital platforms in business, underscoring the need of cultural adaptability and improving digital capabilities. Predicting present and future work requirements greatly depends on determining the relationship between several dimensions of digital skills for training needs. This research is expected to enrich the understanding of the relationship between workplace spirituality and innovative work behavior moderated by digital skills (DS) in the digital era. Additionally, this study aims to provide a comprehensive and in-depth overview of the relationships among digital workplace spirituality (DWS), digital skills (DS), and the innovative behavior of millennial workers, as well as identify areas for improvement to foster employees' innovative behavior effectively.

Theoretical framework and hypotheses

Theoretical framework

The idea that employees' spiritual needs and goals impact their work, albeit within a digital framework, is known as "Digital Workplace Spirituality" (DWS). This encompasses the use of digital technology to assist the pursuit of meaning, purpose, and values in the workplace, as well as the development of wholesome connections and a morally upright virtual work environment. Put more simply, it's workplace spirituality within a digital environment. Digital tools like digital communication, health apps, and online collaboration platforms make it possible to create a work atmosphere in the digital era that encourages employee spirituality. It is possible to observe workplace spirituality (WPS) on an individual, organizational, and social level (Ranasinghe & Samarasinghe, 2019). Workplace Spirituality (WPS) is also understood as the recognition and application of spiritual values, ethics, and moral principles in work arrangements, which include attention to the balance between work and personal life, fairness, empathy, and respect for individuals. (Petchsawang & Duchon, 2009). This could also be seen as acknowledging and incorporating spiritual aspects of work life, such as the pursuit of purpose, helping others, and personal development at work. (Jurkiewicz & Giacalone, 2004). Furthermore, this can be understood as the understanding and practice of ethical and moral values, service to others, self-awareness, and the pursuit of meaning in the workplace.

(V. M. Kinjerski & Skrypnek, 2004). The contextualization of the relationship between digitalization and workplace spirituality is supported by Walter's attempt to connect digitalization and spirituality in the workplace (Walter, 2024).

Based on research from the main body of literature addressing the relationship between several influencing and directly impacted elements and workplace spirituality (WPS). Workplace deviant behavior is one of the elements that is negatively impacted by workplace spirituality (Haldorai et al., 2020). Workplace spirituality positively affects 9 variables including employees' innovative work behavior, job satisfaction (Jeon & Choi, 2021), organizational citizenship behavior (OCB)(Jeon & Choi, 2021), employee flourishing(Hunsaker & Ding, 2022), Employee loyalty (V. Kinjerski & Skrypnek, 2008; Aboobaker et al., 2020), pro-environmental behavior, biospheric values, altruistic values, and interconnectedness with nature, humanity, planet, and organization (Hunsaker & Ding, 2022). Workplace spirituality is influenced by several elements, including leadership impact, corporate justice and ethical atmosphere, and more. Furthermore, studies on a variety of models created in systematic literature reviews have been carried out by researchers. There are four different models proposed: the Pawar model, the Klodinsky model, the Vandenburgh model, and the Houghton et al. model (Rathee & Rajain, 2020).

The act of an individual to develop and apply novel concepts, procedures, goods, or services that improve the organization and provide value is known as innovative work behavior, or IWB (Montani et al., 2014). Workers that participate in IWB will try to come up with fresh concepts that can fix issues or enhance procedures. Idea Implementation comes in second. Third: Cooperation and Exchange of Information. To accomplish innovation, workers must cooperate, exchange ideas, and work as a team (Anderson et al., 2014). Fourth; Resilience and Risk-Taking. IWB can involve taking risks and resilience to failure. Workers that are innovative need to be ready to fail and grow from their mistakes. The fifth is research and experimentation. Workers that participate in IWB frequently carry out studies or tests to validate their theories. Employee conduct that involves coming up with fresh concepts, coming up with inventive solutions, and putting those innovations into practice at work is known as innovative work behavior (IWB) (AlMazrouei et al., 2023). The dimensions of IWB include the ability to think creatively, innovate, and develop new ideas that can enhance organizational performance. (Hunsaker & Ding, 2022).

Digital skill (DS) is the ability of workers to operate in digital spaces, encompassing eight dimensions: technology use, cybersecurity, content management, communication and collaboration, critical inquiry, responsibility, well-being, and identity and development. (B. Audrin et al., 2024). Creating innovative workers certainly requires competent employees. (Suhada & Muafi, 2024). Because the current era is working in digital spaces, a series of digital competencies or digital skills are certainly needed. (C. Audrin & Audrin, 2022). Digitalization besides bringing several advantages such as work-life balance (Lee & Joseph Sirgy, 2019), but also brings negative impacts, including employees experiencing technostress and excessive workload (Kokshagina & Schneider, 2023). Excessive workload will also cause employees to be un-innovative and un-productive (Walter, 2024).

Hypothesis development

Based on a literature review to identify research gaps, the researcher has examined over 32 key articles from reputable international journals. The review identified key variables affecting workplace spirituality, with two variables having a direct impact: ethical climate and organizational justice. Additionally, there are 10 variables influenced by workplace spirituality, one of which is innovative work behavior. However, the review found no quantitative research attempting to construct workplace spirituality in the digital context, also referred to as digital workplace spirituality (DWS). Nevertheless, a qualitative study by Walter in 2024 attempted to connect workplace spirituality, digitalization, and psychological well-being(Walter, 2024). Based on the review and the study that attempted to connect workplace spirituality and innovative work behavior, which was found to have a positive and significant relationship(Hunsaker & Ding, 2022). the researcher aims to develop a new construct of Digital Workplace Spirituality (DWS) and include digital skills as a moderating variable. Thus, in a construct, the research framework can be presented as innovation with the contextualization of WPS variable into DWS and the addition of DS variable as a moderator.

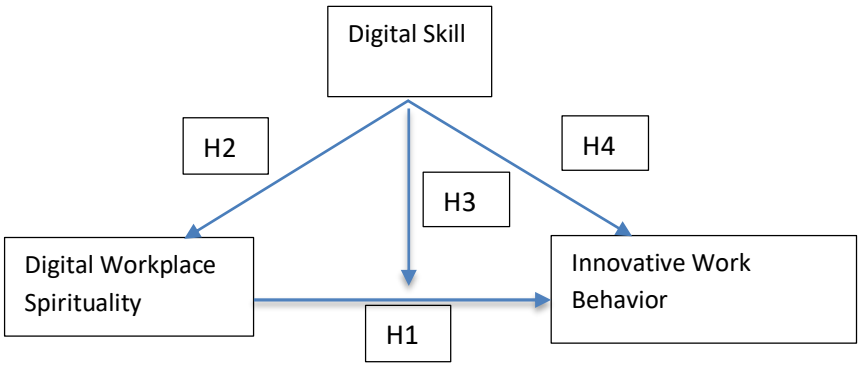

Figure 1
Research Framework (Author Model)

Digital Workplace Spirituality (DWS) and Innovative Work Behaviours (IWB)

When we talk about workplace spirituality, we're talking about the experiences of people who work for an organization and have spiritual values below. This can happen in both physical and virtual offices. Employees are more likely to come up with fresh concepts and implement innovations in the workplace when they believe that their work has a profound spiritual significance and is in line with those beliefs(Bantha & Nayak, 2021). In addition to internal incentives like pay or promotions, this motivation is also fueled by the sense of fulfillment one gets from making significant contributions to the workplace. Put differently, workers who are employed in an atmosphere that values spirituality are more likely to believe that their job serves as a vehicle for social and personal development in addition to meeting material requirements.(Haslam et al., 2000).

Similar studies have demonstrated that workers' intrinsic motivation increases when they believe their employment is in line with their spiritual beliefs (Moon et al., 2020)(Vitor

Roslindo et al., 2024). According to numerous studies, spirituality in the workplace—which encompasses spiritual practices, meaning, and a sense of connectedness—can inspire workers to be more imaginative and creative (Karakas & Sarigollu, 2019). They may be inspired to display creative work habits as a result. Employee innovation, creativity, and problem-solving abilities can flourish in a work atmosphere that values spirituality and purpose(Shin et al., 2022) . Therefore, the following hypothesis can be formulated:

H1: Digital workplace spirituality has a positive effect on employee innovative behavior.

Digital skill and digital workplace spirituality

Digital skills (DS) are a requirement for one's success in carrying out work tasks in the digital space (Rizza, 2023). In a digital workplace, spiritual relationships are facilitated in large part by digital abilities. Digitally savvy workers can more easily access and make use of digital platforms to facilitate their spiritual activities at work. Inadequate competency in using a digital workspace can also result in psychological distress, also known as rechnostress, which is characterized by an inability to effectively manage workload and a never-ending sense of labor(Kokshagina & Schneider, 2023 ; Gebauer et al., 2013). According to Walter, digital skills encompass more than just the technical proficiency with technology. Professionals in today's world need to possess at least eight (8) different types of digital skills, and those who do will find that it helps them feel and practice spirituality more successfully in the digital context. Based on this, the following hypothesis can be proposed:

H2: Digital skills have a positive effect on Digital Workplace Spirituality (DWS)

The moderating effect of digital skill on the relationship between digital workplace spirituality and innovative work behavior

Future workplaces will prioritize how and what gets done rather than where or when it gets done. As a result, businesses are embracing more sophisticated and cutting-edge information technology (IT) to effectively facilitate digital work and build a more adaptable workplace of the future(Dittes et al., 2019). Therefore, it is very necessary to have adequate digital skills to be able to adapt to this era (Van Laar et al., 2017). A prior study that involved 431 professional web editors working for media companies successfully identified the mediating function of digital skills. A study found that the relationship between mindfulness and work performance is mediated by the workplace spirituality and digital competency chain (He et al., 2023). The same thing is also conveyed by several other researchers who state that workplace spirituality has a positive effect on employee innovative behaviour. Considering these presumptions, it is crucial for organizations to support workers' spiritual growth at work and make sure they have the digital skills needed to fully utilize spirituality in the innovation process. The hypothesis that follows is put forth considering these presumptions:

H3: Digital skills moderate the relationship between digital workplace spirituality and employee innovative behavior.

Effect of digital skill on innovative work behavior

Employee inventive behavior can also be directly impacted by digital skills. Previous grounded theory research has demonstrated a high correlation between inventive behavior and digital competence or skills, which lends validity to this notion (Liu et al., 2024). It might be argued that workers with strong digital abilities are better equipped to experiment with and adopt new technologies, which can foster creative thinking among them at work. According to the qualitative research mentioned above, workers who possess high levels of digital competence should theoretically be more capable of coming up with original ideas and creative solutions since they can integrate technology into their work processes more successfully. Nonetheless, empirical testing of the results using quantitative techniques is required because the research is uncovering a hypothesis. Because of this presumption, the hypothesis put forward is:

H4: Digital skills have a positive effect on employee innovative behavior

Methods

This research employs a quantitative method with a survey approach. This approach was chosen to facilitate the collection of objective and measurable data, as well as to analyze the causal relationships between the variables under study. The analytical technique utilized is partial least squares structural equation modeling (PLS-SEM), which is suitable for models with complex relationships and latent constructs. PLS can be implemented as a regression model to predict one or more dependent variables from one or more independent variables, or it can be implemented as a path model, which involves causal paths linking predictor variables and paths linking predictor variables and response variables (Khalaf, 2022).

Participant and procedure

The population of this study consists of millennial workers in Sleman Regency and Yogyakarta City who are accustomed to working in digital spaces. The sample will comprise 250 respondents who typically engage in remote work and fall within the millennial age category, over a period of 5 months. Purposive sampling technique is employed for sampling.

Measures

The DWS variable contextualizes Workplace Spirituality within a digital context. The Workplace Spirituality (WPS) dimension measures three main aspects of workplace spirituality: meaning in work, sense of community, and value alignment. Therefore, due to the shift from physical work to digital work or within digital spaces (Walter, 2024) thus referred to as a digital workplace (Haddud & McAllen, 2018; Williams & Schubert, 2018). Spirituality in the digital workplace encompasses three dimensions: meaning in work, sense of community, and value alignment. It is measured using a 5-point Likert scale. (Aboobaker et al., 2020; Rathee & Rajain, 2020). Innovative Work Behavior (IWB): Individual actions to create and implement new ideas, processes, products, or services that bring positive change and added value to the organization. Measured using a 5-point Likert scale.(Ahmed et al., 2022; De Jong & Den Hartog, 2010). Thus, in a construct, the research framework can be presented as

innovation with the contextualization of WPS variable into DWS and the addition of DS variable as a moderator DS refers to workers' abilities to operate within digital environments, encompassing eight dimensions: technology usage, cybersecurity, content management, communication and collaboration, critical inquiry, responsibility, well-being, and identity and development (Audrin et al., 2024). Measured using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Data analysis procedures

To assess the validity of indicators for each variable used, the researcher adopts the perspective of Hair et al. (2017) that advocates for the outer model. This approach includes testing convergent validity, average variance extracted (AVE), and reliability. Decisions are made considering indicators valid if their outer loadings, AVE, and reliability exceed 0.50 (Hair et al., 2017). The outer mode table can be seen in appendix 1. In addition to the outer model, this study also adopts the testing of the inner model to predict the relationships between latent variables.

Results and discussion

Descriptive statistics

Based on the data from Figure 2, of the total 250 respondents included in this study, the target population was remote workers belonging to the millennial generation, defined as those born between 1981 and 1996. Among the respondents who completed the questionnaire, 29% were aged between 28-32 years, 38% were aged between 33-38 years, and 33% were aged between 39-44 years. This data indicates an even age distribution among remote millennial workers, reflecting the diverse workforce dynamics within this age group.

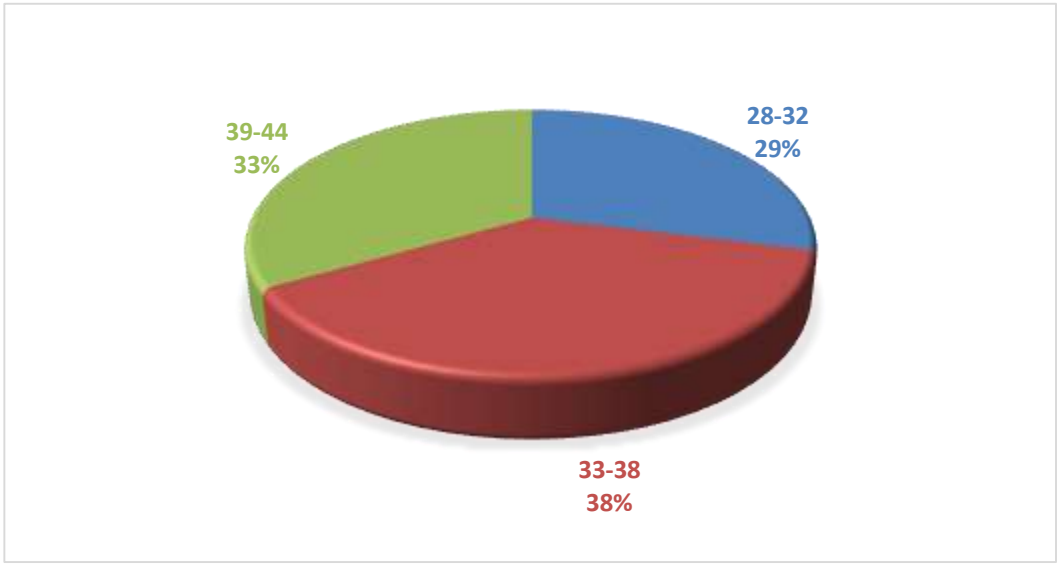

Figure 2.
Distribution of respondents by age

Hypothesis testing

The tests conducted on the inner model include the coefficient of determination (R-Squared). Hair et al. (2011) categorize R-Square values as strong (0.75), moderate (0.50), and weak (0.25). In Table 1, the R-Square value for the impact of DWS on IWB is 0.464, which means the contribution of DWS to IWB is 46%. Furthermore, the R-Square value for the impact of DS on DWS is 0.569, indicating that the contribution of DS to DWS is 56%. Both values fall into the moderate category.

Table 1.
Inner Model Test Results (R-Square)

Constructs/Variable	*R-Square*	*R-Square Adjusted*
Innovative Work Behavior (IWB)	0.464	0.438
Digital Workplace Spirituality (Z)	0.569	0.563

Source: Primary Data are processed, 2024

Table 2 shows the mean values, standard deviations, and correlations between the research variables. The analysis results indicate that digital workplace spirituality has a positive relationship with innovative work behavior (IWB) among remote workers in Sleman Regency, with a p-value of 0.008. Digital skills (DS) possessed by remote workers in Sleman Regency have a positive relationship with digital workplace spirituality (DWS), with a p-value of 0.000. Digital skills do not have a direct positive and significant relationship with the innovative work behavior (IWB) of remote workers in Sleman Regency, as indicated by a p-value of 0.158.

Table 2.
Total direct and indirect effects-mean, stdev, t value dan p value

Total Direct Effect	**Original sample (0)**	**Standard deviation**	**T Statistics**	**P values**
DS → IWB	0,248	0,176	1,412	0.158
DS → DWS	0,755	0,055	13,743	0,000
DWS → IWB	0,467	0,174	2,647	0,008
Total Indirect Effect				
DS → IWB	0,348	0,113	2,686	0,007

Source: Primary Data are processed, 2024

In Table 2, the results of indirect effect analysis indicate that social support has a positive indirect effect or acts as a moderating variable with a P-value of 0.007. Thus, hypotheses 1 to 3 are supported while H4 is not supported. This suggests that the influence of digital skills (DS) across its eight dimensions acts as a moderating variable, as titled in this study, and does not directly affect employee innovative behavior).

Discussion

The results of testing the influence of DWS on IWB, which show positive and significant outcomes, are consistent with other studies in the context of the original variable, namely WPS with IWB (Hunsaker & Ding, 2022). Similarly, with other research that positions psychological empowerment as a mediating variable (Bantha & Nayak, 2021). Contextually, in the exploratory conceptual framework of qualitative research, a relationship model was found as a reference model for subsequent researchers on the relationship between workplace spirituality and digitalization. The results of this study are demonstrated by a direct positive and significant relationship between digital skills and DWS in this quantitative research method. This means that this study can present and prove the variable found by Walter in qualitative research through a quantitative research method. Walter in 2024, in his research conducted at KUAS University in Switzerland, found that there is a relationship between psychological aspects, digitalization, and spirituality (Walter, 2024).

This study's innovation factor demonstrates the positive and significant influence of digital skills as a moderating variable. This suggests that in order to promote employee morale in digital spaces and foster innovative employee behavior for better business performance, HR managers or company leaders can help employees build their digital skills (DS). It is possible to conduct additional research on the digital abilities that are most important for improving workers' spirituality at work by looking closely at each dimension's precise measurements.

This study found that DWS has a positive and significant correlation with IWB, with a p-value of 0.002. This indicates that a high level of spiritual engagement and a sense of purpose in a digital workplace can foster innovative behavior among remote employees. However, the direct relationship between DS and IWB is not significant ($p = 0.0153$). This suggests that although digital skills are important, their impact on innovation serves as a moderation effect on the relationship with workplace spirituality variables. In this context, digital skills act as a supportive factor that strengthens the relationship between spirituality and innovation.

This study expands our understanding of how various factors can interact to drive innovative behaviour in the workplace. The findings critically highlight the importance of integrating digital skills and workplace spirituality to foster innovation among remote workers. The positive and significant relationship between DWS and IWB confirms that workplace spirituality is not only relevant in traditional contexts but is also crucial in today's digital work environments. This strengthens the argument that a workplace that supports spirituality can lead to more innovative and engaged employees. However, the indirect relationship between DS and IWB through DWS indicates that while digital skills are important, they are not sufficient to drive innovation directly. This underscores the need for a holistic approach that includes developing digital skills and enhancing workplace spirituality to achieve optimal outcomes in innovative behaviors.

This research has practical implications for organizations aiming to boost workplace innovation. Investment in digital skills training is essential, but it must be accompanied by efforts to create a work environment that supports spirituality. Integrating digital technologies that support spiritual practices, such as online collaboration platforms and wellness applications, can help create a more innovative and balanced work environment. Thus,

organizations that adopt this holistic approach will be better positioned to achieve sustainable and comprehensive growth, aligning with the new paradigm in organizational studies.

Limitations

This study has several limitations, including the inability to delve into specific dimensions of digital workplace spirituality and digital skills, thus it cannot yet determine focus areas for enhancing employee innovative behaviour. Additionally, the research sample, which only includes the millennial group, limits the generalizability of the results to other age groups.

Conclusion

This study focuses on the paradigm shift from wealth maximization and economic growth towards organizational sustainability and holistic company growth. In this context, the study of workplace spirituality becomes highly relevant, especially with the ongoing digital transformation. This research has identified a new construct in the form of digital skills (DS) in exploring the relationship between digital workplace spirituality and the variable innovative work behavior. This study highlights the paradigm shift from wealth maximization and economic growth towards organizational sustainability and holistic company growth, focusing on workplace spirituality in a digital context. Recommendations for further research include more in-depth quantitative and qualitative studies to explore the relationship between DWS and IWB and the role of DS in various contexts, the development of a more comprehensive theoretical model, and the adaptation of work culture to support remote and digital work while maintaining spiritual values

Acknowledgment

The researcher extends deep gratitude to the Directorate of Research, Technology, and Community Service (DRTPM) of the Directorate General of Higher Education, Research, and Technology (Ditjen Diktiristek) of the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) through LLDIKTI V for the funding provided under the regular PDP grant scheme for 2024. Thanks, are also given to the partners and respondents who participated, as well as all team members involved in the research. Additionally, the researcher expresses high appreciation to Universitas Nadhlatul Ulama Yogyakarta for their support in providing facilities and infrastructure, which was instrumental in the successful execution of this study.

List of abbreviations

DWS = Digital Workplace Spirituality
DS = Digital Skill
DRTP= Direktorat Riset, Teknologi dan Pengabdian Masyarakat
WPS= Workplace Spirituality
IWB= Innovative Work Behavior

References

Aboobaker, N., Edward, M., & K.A., Z. (2020). Workplace spirituality and employee loyalty: An empirical investigation among millennials in India. *Journal of Asia Business Studies*, *14*(2), 211–225. https://doi.org/10.1108/JABS-03-2018-0089

Ahmed, R. R., Soomro, F. A., Channar, Z. A., Hashem E, A. R., Soomro, H. A., Pahi, M. H., & Md Salleh, N. Z. (2022). Relationship between Different Dimensions of Workplace Spirituality and Psychological Well-Being: Measuring Mediation Analysis through Conditional Process Modeling. *International Journal of Environmental Research and Public Health*, *19*(18), 11244. https://doi.org/10.3390/ijerph191811244

AlMazrouei, H., Zacca, R., & Mustafa, G. (2023). Mediating-moderating effect of employee creativity and team potency on expatriate innovative work behaviour. *International Journal of Organizational Analysis*, *31*(5), 1669–1693. https://doi.org/10.1108/IJOA-05-2021-2752

Anderson, N., Potočnik, K., & Zhou, J. (2014). Innovation and Creativity in Organizations: A State-of-the-Science Review, Prospective Commentary, and Guiding Framework. *Journal of Management*, *40*(5), 1297–1333. https://doi.org/10.1177/0149206314527128

Audrin, B., Audrin, C., & Salamin, X. (2024). Digital skills at work – Conceptual development and empirical validation of a measurement scale. *Technological Forecasting and Social Change*, *202*, 123279. https://doi.org/10.1016/j.techfore.2024.123279

Audrin, C., & Audrin, B. (2022). Key factors in digital literacy in learning and education: A systematic literature review using text mining. *Education and Information Technologies*, *27*(6), 7395–7419. https://doi.org/10.1007/s10639-021-10832-5

Bantha, T., & Nayak, U. (2021). The relation of workplace spirituality with employees' innovative work behaviour: The mediating role of psychological empowerment. *Journal of Indian Business Research*, *13*(2), 223–235. https://doi.org/10.1108/JIBR-03-2020-0067

De Jong, J., & Den Hartog, D. (2010). Measuring Innovative Work Behaviour. *Creativity and Innovation Management*, *19*(1), 23–36. https://doi.org/10.1111/j.1467-8691.2010.00547.x

Dimas Jarot Bayu. (n.d.). Survei: Bekerja Jarak Jauh Makin Marak di Indonesia saat Pandemi Covid-19. *Databoks*. Retrieved June 14, 2024, from https://databoks.katadata.co.id/datapublish/2021/06/17/survei-bekerja-jarak-jauh-makin-marak-di-indonesia-saat-pandemi-covid-19

Haddud, A., & McAllen, D. (2018). Digital Workplace Management: Exploring Aspects Related to Culture, Innovation, and Leadership. *2018 Portland International Conference on Management of Engineering and Technology (PICMET)*, 1–6. https://doi.org/10.23919/PICMET.2018.8481807

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Thousand Oaks. *Sage*, 165.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed, a Silver Bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

Haldorai, K., Kim, W. G., Chang, H. (Sean), & Li, J. (Justin). (2020). Workplace spirituality as a mediator between ethical climate and workplace deviant behavior. *International Journal of Hospitality Management*, *86*, 102372. https://doi.org/10.1016/j.ijhm.2019.102372

Hunsaker, W. D., & Ding, W. (2022). Workplace spirituality and innovative work behavior: The role of employee flourishing and workplace satisfaction. *Employee Relations: The International Journal*, *44*(6), 1355–1371. https://doi.org/10.1108/ER-01-2021-0032

Jeon, K. S., & Choi, B. K. (2021). Workplace spirituality, organizational commitment and life satisfaction: The moderating role of religious affiliation. *Journal of Organizational Change Management*, *34*(5), 1125–1143. https://doi.org/10.1108/JOCM-01-2021-0012

Jurkiewicz, C. L., & Giacalone, R. A. (2004). A Values Framework for Measuring the Impact of Workplace Spirituality on Organizational Performance. *Journal of Business Ethics*, *49*(2), 129–142. https://doi.org/10.1023/B:BUSI.0000015843.22195.b9

Khalaf, G. (2022). Improving the Ordinary Least Squares Estimator by Ridge Regression. *OALib*, *09*(05), 1–8. https://doi.org/10.4236/oalib.1108738

Kinjerski, V. M., & Skrypnek, B. J. (2004). Defining spirit at work: Finding common ground. *Journal of Organizational Change Management*, *17*(1), 26–42. https://doi.org/10.1108/09534810410511288

Kinjerski, V., & Skrypnek, B. J. (2008). The Promise of Spirit at WorkIncreasing Job Satisfaction and Organizational Commitment and Reducing Turnover and Absenteeism in Long-Term Care. *Journal of Gerontological Nursing*, *34*(10), 17–25. https://doi.org/10.3928/00989134-20081001-03

Kokshagina, O., & Schneider, S. (2023). The Digital Workplace: Navigating in a Jungle of Paradoxical Tensions. *California Management Review*, *65*(2), 129–155. https://doi.org/10.1177/00081256221137720

Lee, D.-J., & Joseph Sirgy, M. (2019). Work-Life Balance in the Digital Workplace: The Impact of Schedule Flexibility and Telecommuting on Work-Life Balance and Overall Life Satisfaction. In M. Coetzee (Ed.), *Thriving in Digital Workspaces* (pp. 355–384). Springer International Publishing. https://doi.org/10.1007/978-3-030-24463-7_18

Mićić, L., Khamooshi, H., Raković, L., & Matković, P. (2022). Defining the digital workplace: A systematic literature review. *Strategic Management*, *27*(2), 29–43. https://doi.org/10.5937/StraMan2200010M

Modgil, S., Dwivedi, Y. K., Rana, N. P., Gupta, S., & Kamble, S. (2022). Has Covid-19 accelerated opportunities for digital entrepreneurship? An Indian perspective. *Technological Forecasting and Social Change*, *175*, 121415. https://doi.org/10.1016/j.techfore.2021.121415

Montani, F., Odoardi, C., & Battistelli, A. (2014). Individual and contextual determinants of innovative work behaviour: Proactive goal generation matters. *Journal of Occupational and Organizational Psychology*, *87*(4), 645–670. https://doi.org/10.1111/joop.12066

Petchsawang, P., & Duchon, D. (2009). Measuring workplace spirituality in an Asian context. *Human Resource Development International*, *12*(4), 459–468. https://doi.org/10.1080/13678860903135912

Ranasinghe, V. R., & Samarasinghe, S. M. (2019). The Effect of Workplace Spirituality on Innovative Work Behavior. *International Business Research*, *12*(12), 29. https://doi.org/10.5539/ibr.v12n12p29

Rathee, R., & Rajain, P. (2020). Workplace Spirituality: A Comparative Study of Various Models. *Jindal Journal of Business Research*, *9*(1), 27–40. https://doi.org/10.1177/2278682120908554

Suhada, S., & Muafi, M. (2024). Training Needs Assessment for Operator Level Employees in Parking Management DKI Jakarta. In R. El Khoury (Ed.), *Technology-Driven Business Innovation* (Vol. 223, pp. 475–486). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-51997-0_40

Vallo Hult, H., & Byström, K. (2022). Challenges to learning and leading the digital workplace. *Studies in Continuing Education*, *44*(3), 460–474. https://doi.org/10.1080/0158037X.2021.1879038

Walter, Y. (2024). The digital transformation in the psychology of workplace spirituality. *Digital Transformation and Society*, *3*(1), 23–49. https://doi.org/10.1108/DTS-01-2023-0008

Werner, F. M., & Stoner, J. A. F. (2018). Sustainability and the evolution of the shareholder wealth maximization paradigm. In S. Boubaker, D. Cumming, & D. K. Nguyen (Eds.), *Research Handbook of Finance and Sustainability*. Edward Elgar Publishing. https://doi.org/10.4337/9781786432636.00018

Williams, S. P., & Schubert, P. (2018). Designs for the Digital Workplace. *Procedia Computer Science*, *138*, 478–485. https://doi.org/10.1016/j.procs.2018.10.066

Appendix 1

Variable	Item	Outer Loading	AVE	CR
Innovative Work Behavior (IWB)	IWB1	0.893	0.822	0.930
	IWB2	0.917		
	IWB3	0.926		
	IWB4	0.890		
Digital Workplace Spirituality (DWS)	DWS1	0.560	0.951	0.509
	DWS2	0.665		
	DWS3	0.704		
	DWS4	0.752		
	DWS5	0.788		
	DWS6	0.719		
	DWS7	0.818		
	DWS8	0.696		
	DWS9	0.800		
	DWS10	0.774		
	DWS11	0.733		
	DWS12	0.694		
	DWS13	0.799		
	DWS14	0.698		
	DWS15	0.598		
	DWS16	0.700		
	DWS17	0.694		
	DWS18	0.675		
	DWS19	0.682		
	DWS20	0.687		
Digital Skill (DS)	DS1	0.828	0.989	0.639
	DS2	0.776		
	DS3	0.725		
	DS4	0.756		
	DS5	0.837		
	DS6	0.837		
	DS7	0.802		
	DS8	0.812		
	DS9	0.749		
	DS10	0.787		
	DS11	0.841		
	DS12	0.827		
	DS13	0.853		
	DS14	0.740		
	DS15	0.785		

DS16	0.806
DS17	0.810
DS18	0.852
DS19	0.834
DS20	0.832
DS21	0.832
DS22	0.866
DS23	0.853
DS24	0.743
DS25	0.779
DS26	0.779
DS27	0.790
DS23	0.796
DS24	0.750
DS25	0.784
DS26	0.784
DS27	0.654
DS28	0.841
DS29	0.823
DS30	0.854
DS31	0.849
DS32	0.792
DS33	0.829
DS34	0.842
DS35	0.690
DS36	0.769
DS37	0.752
DS38	0.820
DS39	0.843
DS40	0.807
DS41	0.716

Additonal information

Ethics declarations

Funding

The author(s) received funding from the Directorate of Research, Technology, and Community Service (DRTPM) of the Directorate General of Higher Education, Research, and Technology (Ditjen Diktiristek) of the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) through the regular PDP (Peneliti Dosen Pemula-Early Career Researcher) grant scheme for 2024.

Availability of data and materials

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

Competing interests

No potential competing interest was reported by the authors

Cite this paper:
Suhada, S., Diantoro, A. K., Jannah, A. W., Valya, R., & Trianti, D. (2024). The impact of digital workplace spirituality on innovative work behavior among millennial workers: The moderating role of digital skills. *SERAMBI: Jurnal Ekonomi Manajemen Dan Bisnis Islam*, *6*(2), 127-142. https://doi.org/10.36407/serambi.v6i2.1410

SERAMBI: Jurnal Ekonomi Manajemen dan Bisnis Islam

Publisher	: LPMP Imperium.
Frequency	: 3 issues per year (April, August & December).
ISSN (online)	: 2685-9904.
DOI	: Prefix 10.36407.
Accreditated	: SINTA 3
Editor-in-chief	: Prof. Dr. Suryani