The Effect of Technology Integration, Work-Life Balance, and Job Stress on Employee Well-Being in the Art Industry in Jakarta

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ABSTRACT

This quantitative study investigates the impact of technology integration, work-life balance, and job stress on employee well-being within the art industry in Jakarta. Through a cross-sectional survey of 150 professionals, data were collected and analyzed using Structural Equation Modeling with Partial Least Squares (SEM-PLS 3). The measurement model assessment confirmed the reliability and validity of the measurement instrument, while the structural model estimation revealed significant direct and indirect effects among the variables. The findings indicate that technology integration positively influences employee well-being, while work-life balance and job stress play significant roles in shaping employee welfare. These results underscore the importance of organizational strategies and interventions aimed at promoting a healthier, more supportive work environment within the art industry. The study contributes to a deeper understanding of the factors influencing employee well-being in the context of creative professions and provides valuable insights for organizational leaders, policymakers, and practitioners.

Keywords: Technology Integration, Work-Life Balance, Job Stress, Employee Well-Being, Art Industry, SEM PLS

1. INTRODUCTION

In today’s dynamic work environment, the integration of technology, the promotion of work-life balance, and effective stress management are pivotal for enhancing employee well-being [1]–[5]. Technology plays a crucial role in mental health initiatives, offering tools like internet-based therapy and stress management apps. Work-life balance is increasingly important, with stressors like long work hours and high performance expectations necessitating proactive stress management strategies. Well-being at work encompasses both pleasure and meaning, influenced by various work experiences and conditions, ultimately impacting employee behavior [6], [7]. Organizations must prioritize creating supportive work environments that facilitate work-life balance, provide resources for stress...
management, and encourage open communication to mitigate burnout and enhance overall well-being.

The arts industry in Jakarta, a city renowned for its artistic expression and cultural diversity, thrives as a vibrant center of creativity, encompassing a variety of forms ranging from visual arts to performing arts, traditional to contemporary expressions [8], [9]. The creative industries, including the arts sector, play an important role in Indonesia's economy, making a sizable contribution to GDP and offering potential for growth and innovation [10]-[12]. Small and medium enterprises dominate the creative industries, making them more resilient to economic crises, as seen during the Covid-19 pandemic, highlighting their adaptability and contribution to the national economy. Efforts to empower the creative industries involve building a brand image to enhance competitiveness and ensure business continuity, emphasizing the importance of strategic investment in branding for long-term benefits [13].

The art industry faces challenges impacting workforce well-being, including the effects of technological advancements on artistic expression [14]. The COVID-19 pandemic has exacerbated these challenges, revealing gaps in support for freelance workers and grassroots organizations, emphasizing the need for a more equitable and diverse industry [15], [16]. Freelancers in the cultural sector have experienced adverse effects on mental well-being due to pandemic-related economic instability and work dissonance, highlighting the urgent need for economic and psychosocial support [17]. Tasmania's creative sector suffered during the pandemic due to poor categorization, with financially supported individuals able to adapt their practices and maintain well-being, while those lacking support faced negative impacts on health and creativity [18]. These findings underscore the importance of addressing the well-being challenges faced by individuals working in the art industry.

Against this backdrop, the primary objective of this study is to conduct a comprehensive quantitative analysis to explore the effect of technology integration, work-life balance, and job stress on employee well-being within the art industry in Jakarta.

2. LITERATURE REVIEW

2.1 Technology Integration and Employee Well-Being

Technology integration in the workplace has become ubiquitous, revolutionizing the way tasks are performed, communication is conducted, and creative processes unfold within the art industry [19], [20]. While technology offers numerous benefits such as increased efficiency, collaboration opportunities, and expanded reach, its pervasive presence also raises concerns regarding its impact on employee well-being [21], [22]. Studies have shown that excessive reliance on technology and digital tools can lead to feelings of burnout, information overload, and decreased job satisfaction among employees in various sectors, including the creative fields [23], [24]. Moreover, the blurring of boundaries between work and personal life facilitated by constant connectivity can disrupt work-life balance and contribute to stress and fatigue [5], [25]. However, it is crucial to recognize that the relationship between technology integration and employee well-being is nuanced, with both positive and negative effects. When utilized effectively, technology can enhance creativity, streamline workflows, and facilitate remote collaboration, thereby positively influencing employee satisfaction and overall well-being.

2.2 Work-Life Balance and Employee Well-Being

Achieving work-life balance is crucial for enhancing employee well-being and job satisfaction [26]-[28].
In the art industry, where work passion often blurs boundaries, maintaining this balance is challenging. Research suggests that employees with control over their schedules and personal time exhibit higher satisfaction and well-being [29]. Flexible work arrangements like telecommuting and compressed workweeks can aid in achieving work-life balance and reducing stress, particularly in creative professions [30]. Supporting initiatives such as parental leave policies and flexible scheduling can foster a positive work culture, enhance engagement, and improve retention within the art industry. Organizational backing for work-life balance is vital for promoting employee welfare and overall quality of life in the art sector.

2.3 Job Stress and Employee Well-Being

Job stress, stemming from factors such as high workload, interpersonal conflicts, and job insecurity, significantly impacts employee well-being and organizational productivity [3], [31]–[34]. In the competitive arts industry, where perfectionism is common, individuals face high levels of stress and anxiety, potentially leading to poor health outcomes such as fatigue, insomnia, and depression. Chronic exposure to stressors can also inhibit creativity, motivation and job performance, affecting overall well-being and job satisfaction. Implementing stress management strategies such as mindfulness practices and organizational support systems are essential to mitigate these negative effects and foster resilience among arts sector employees [35]. Creating a supportive work environment with open communication and recognition can further enhance well-being and buffer the impact of stress in the arts industry.

3. METHODS

3.1 Research Design

This study adopts a quantitative research approach to systematically examine the relationships between technology integration, work-life balance, job stress, and employee well-being within the art industry context. Specifically, a cross-sectional survey design will be utilized to collect data from employees working in various sectors of the art industry in Jakarta.

3.2 Sampling Strategy

The target population for this study comprises individuals employed in roles related to the art industry in Jakarta, including artists, designers, performers, administrators, and other professionals. A stratified random sampling technique will be employed to ensure representation from different sectors of the art industry, such as visual arts, performing arts, creative design, and arts administration. Given the diversity and complexity of the art industry landscape in Jakarta, the sample size is determined to be 150 participants. This sample size is deemed sufficient to achieve the study's objectives while ensuring statistical reliability and generalizability of findings.

3.3 Data Collection

A structured questionnaire will be developed based on established scales and validated instruments to measure the key variables of interest: technology integration, work-life balance, job stress, and employee well-being. The Likert scale will be employed, with response options ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), allowing participants to indicate their level of agreement with each item. The questionnaire will be administered electronically using online survey platforms to facilitate efficient data collection and ensure anonymity and
confidentiality of respondents. Participants will be recruited through purposive sampling methods, including email invitations, social media platforms, and professional networks within the art industry in Jakarta.

To enhance the validity and reliability of the survey instrument, pre-testing will be conducted with a small pilot sample of art industry professionals to assess the clarity, comprehensibility, and relevance of questionnaire items. Based on feedback received, necessary adjustments and refinements will be made to the questionnaire before the main data collection phase.

3.4 Data Analysis

The collected data will undergo analysis utilizing Structural Equation Modeling (SEM) with Partial Least Squares (PLS) 3 software, a robust statistical technique suitable for examining intricate interrelationships among multiple variables and evaluating both measurement and structural models simultaneously. The analysis process encompasses several steps: Firstly, Confirmatory Factor Analysis (CFA) will assess the reliability and validity of the measurement model, scrutinizing internal consistency and convergent and discriminant validity of latent constructs. Secondly, Structural Model Estimation will involve path analysis within the SEM framework to examine relationships between latent constructs, evaluating direct and indirect effects on employee well-being. Thirdly, Model Evaluation and Interpretation will employ bootstrapping techniques to estimate standard errors and assess the significance and strength of structural paths, alongside goodness-of-fit indices to evaluate overall model fit. Lastly, Hypothesis Testing will utilize estimated path coefficients to test hypotheses regarding the predictive power of technology integration, work-life balance, and job stress on employee well-being within the Jakarta art industry. By employing SEM-PLS 3 software, this study aims to unveil complex relationships, offering insights for fostering a healthier work environment in the Jakarta art industry. Figure 1 illustrates conceptual and hypothesis for this study.

Figure 1. Conceptual Framework

4. RESULTS AND DISCUSSION

4.1 Demographic Sample

In this section, we present the demographic characteristics of the sample
population involved in the study, including participants’ age, gender, educational background, years of experience in the art industry, and employment status. The demographic profile of the sample reflects a diverse representation of individuals working in the art industry in Jakarta, with the majority falling within the age range of 25-34 years. Gender distribution shows a slightly higher representation of males compared to females. In terms of educational background, the majority hold a Bachelor's degree, followed by individuals with a Master's degree. The distribution of years of experience in the art industry is relatively balanced, with a notable proportion having 1-5 years and 6-10 years of experience. Employment status indicates that the majority are employed full-time, while a smaller percentage are engaged in part-time or freelance work.

4.2 Measurement Model Discussion

The measurement model assessment provides insights into the reliability and validity of the latent constructs (i.e., Technology Integration, Work-Life Balance, Job Stress, and Employee Well-Being) measured in the study. The evaluation includes examining the factor loadings, Cronbach's alpha coefficients, composite reliability, and average variance extracted (AVE) for each construct.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Code</th>
<th>Loading Factor</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
<th>Average Variant Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology Integration</td>
<td>TI.1</td>
<td>0.838</td>
<td>0.872</td>
<td>0.922</td>
<td>0.797</td>
</tr>
<tr>
<td></td>
<td>TI.2</td>
<td>0.943</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TI.3</td>
<td>0.895</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work-Life Balance</td>
<td>WB.1</td>
<td>0.888</td>
<td>0.826</td>
<td>0.894</td>
<td>0.739</td>
</tr>
<tr>
<td></td>
<td>WB.2</td>
<td>0.874</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>WB.3</td>
<td>0.815</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Stress</td>
<td>JS.1</td>
<td>0.791</td>
<td>0.795</td>
<td>0.880</td>
<td>0.710</td>
</tr>
<tr>
<td></td>
<td>JS.2</td>
<td>0.874</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>JS.3</td>
<td>0.861</td>
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<tr>
<td>Employee Well-Being</td>
<td>EB.1</td>
<td>0.904</td>
<td>0.832</td>
<td>0.899</td>
<td>0.739</td>
</tr>
<tr>
<td></td>
<td>EB.2</td>
<td>0.878</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EB.3</td>
<td>0.811</td>
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</tr>
</tbody>
</table>

Source: Data Processing Results (2024)

The assessment of the measurement model validates the reliability and validity of the instrument used to evaluate the latent constructs. Strong factor loadings exceeding 0.7, high internal consistency indicated by Cronbach's alpha coefficients ranging from 0.795 to 0.872, and robust composite reliability above 0.880 affirm the scale's reliability across Technology Integration, Work-Life Balance, Job Stress, and Employee Well-Being. Additionally, the Average Variance Extracted (AVE) surpasses the 0.5 threshold for all constructs, signaling adequate convergent validity. These findings underscore the measurement model's capability to accurately capture the intended constructs. Consequently, the stage is set for further analysis of the structural relationships among these constructs using SEM-PLS 3 software.

4.3 Discriminant Validity

Discriminant validity assesses whether the measures of different constructs are truly distinct from each other. This is typically evaluated by comparing the square root of the average variance extracted (AVE) for each construct with the correlations between constructs. If the AVE for each construct is greater than the correlations between constructs, discriminant validity is established.
The assessment of discriminant validity reveals that each construct’s Average Variance Extracted (AVE) exceeds the correlations between the focal construct and all other constructs, confirming their distinctiveness. Specifically, Employee Well-Being demonstrates an AVE of 0.739, surpassing correlations ranging from 0.273 to 0.845. Likewise, Job Stress exhibits an AVE of 0.710, exceeding correlations ranging from 0.345 to 0.845. Furthermore, Technology Integration showcases an AVE of 0.797, greater than correlations with Employee Well-Being (0.299) and Job Stress (0.345). Similarly, Work-Life Balance manifests an AVE of 0.739, surpassing correlations with Employee Well-Being (0.273) and Job Stress (0.361). These findings solidify the constructs’ discriminant validity, reinforcing their independence in the measurement model and providing confidence in subsequent analyses.

4.4 Model Fit

Model fit indices assess how well the hypothesized structural model fits the observed data. A good model fit indicates that the relationships specified in the model accurately reflect the relationships observed in the data.

Table 3. Model Fit Results Test
Various fit indices were assessed to evaluate the adequacy of the models. Firstly, the Standardized Root Mean Square Residual (SRMR) measured the average standardized difference between observed and predicted covariances, yielding values of 0.083 for both the saturated and estimated models, indicating acceptable fit. Secondly, the indices d_ULS and d_G gauged the discrepancy between model-implied and sample covariance matrices, with identical values of 0.533 and 0.329, respectively, for both models, suggesting acceptable fit. Chi-square ($\chi^2$) values of 275.653 were observed in both models, indicating no significant difference between observed and model-implied covariance matrices. Lastly, the Normed Fit Index (NFI) values of 0.735 for both models suggest that the estimated model explains 73.5% of the variance relative to the null model, indicating a moderate level of fit. Overall, these indices collectively support the adequacy of the estimated model in explaining the data.

### Table 4. Coefficient Model

<table>
<thead>
<tr>
<th>R Square</th>
<th>Q2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Well-Being</td>
<td>0.622</td>
</tr>
</tbody>
</table>

The analysis reveals that approximately 62.2% of the variance in Employee Well-Being within Jakarta’s art industry is explained by Technology Integration, Work-Life Balance, and Job Stress, as indicated by the R-Square value. This suggests a reasonably good explanation of Employee Well-Being variation in the model. Additionally, the Q2 value of 0.507, assessing predictive validity through leave-one-out cross-validation, indicates the model’s ability to predict around 50.7% of the variance in Employee Well-Being out-of-sample, suggesting moderate to good predictive validity. These results highlight the collective impact of Technology Integration, Work-Life Balance, and Job Stress on Employee Well-Being and emphasize the model’s robustness in predicting well-being based on observed relationships. Consequently, addressing these factors is crucial for promoting employee well-being and cultivating a healthier work environment in Jakarta’s art industry.

### 4.5 Hypothesis Testing

Hypothesis testing involves evaluating the statistical significance of the relationships between independent variables (Technology Integration, Work-Life Balance, and Job Stress) and the dependent variable (Employee Well-Being). The results provided include the original sample values (O), sample means (M), standard deviations (STDEV), T statistics, and P values for each hypothesis.

### Table 5. Hypothesis Testing

<table>
<thead>
<tr>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics</th>
<th>P Values</th>
</tr>
</thead>
</table>
The analysis reveals statistically significant relationships between Technology Integration, Work-Life Balance, Job Stress, and Employee Well-Being. For Technology Integration, with a T statistics value of 4.138 and a P value of 0.000 (p < 0.05), the hypothesis of a positive influence on Employee Well-Being is supported. Similarly, Work-Life Balance demonstrates a significant positive influence on Employee Well-Being, as indicated by a T statistics value of 3.024 and a P value of 0.003 (p < 0.05). Conversely, Job Stress exhibits a significant negative influence on Employee Well-Being, with a T statistics value of 6.675 and a P value of 0.000 (p < 0.05). These findings affirm the hypotheses proposed, emphasizing the importance of considering these factors in promoting employee well-being within the art industry in Jakarta.

**Discussion**

The discussion section provides a comprehensive interpretation of the study’s findings, contextualizes them within existing literature, and explores their implications for theory, practice, and future research in the art industry in Jakarta.

The quantitative analysis revealed significant relationships between Technology Integration, Work-Life Balance, Job Stress, and Employee Well-Being within the art industry context in Jakarta. Specifically, Technology Integration was found to positively influence Employee Well-Being, indicating that the effective utilization of technology can enhance the overall welfare of employees in the art sector. Similarly, Work-Life Balance emerged as a significant predictor of Employee Well-Being, underscoring the importance of organizational policies and practices that support employees in achieving a harmonious balance between professional responsibilities and personal pursuits. Conversely, Job Stress was found to hurt Employee Well-Being, highlighting the need for proactive measures to mitigate stressors and create a supportive work environment for individuals working in the art industry.

The research findings align with prior studies emphasizing the significance of technology integration, work-life balance, and stress management in enhancing employee well-being across industries [1], [4], [36]–[38]. Organizational psychology and management research consistently stress the role of supportive work environments, flexible arrangements, and stress coping strategies in boosting employee satisfaction, engagement, and retention. Additionally, studies in the creative sectors highlight the unique challenges faced by artistic professionals, advocating for tailored interventions to address their specific needs and dynamics effectively. This collective evidence underscores the importance of implementing strategies that cater to the diverse requirements of employees in different industries to promote their overall well-being and productivity.

**Implications for Practice**

The findings of this study have several practical implications for organizations and policymakers in the art industry in Jakarta. Firstly, organizations can leverage technology to enhance collaboration, streamline workflows, and provide innovative solutions while ensuring that employees are equipped with the necessary resources and support to navigate the digital landscape effectively. Secondly, initiatives aimed at promoting work-life balance, such as flexible work arrangements, wellness programs, and supportive organizational
cultures, can contribute to a healthier and more productive workforce. Lastly, addressing job stress through targeted interventions, stress management workshops, and mental health support services can help mitigate the negative impact of stressors and create a conducive work environment that nurtures employee well-being.

**Limitations and Future Research Directions**

Despite the valuable insights gained from this study, several limitations should be acknowledged. The cross-sectional nature of the study limits causal inferences, and future research employing longitudinal designs could provide a more nuanced understanding of the dynamic relationships between the study variables over time. Additionally, the study focused on quantitative analysis, and complementary qualitative research methods, such as interviews and focus groups, could offer deeper insights into the subjective experiences and perceptions of employees within the art industry. Furthermore, the study was conducted in the specific context of Jakarta’s art industry, and future research could explore how these findings generalize to other cultural contexts and creative sectors.

**5. CONCLUSION**

In conclusion, this study provides empirical evidence of the intricate relationships between technology integration, work-life balance, job stress, and employee well-being within the art industry in Jakarta. The findings highlight the importance of addressing these factors to foster a healthier and more supportive work environment for individuals engaged in creative pursuits. By leveraging technology effectively, implementing work-life balance initiatives, and managing job stress, organizations can enhance the overall welfare and satisfaction of employees in the art sector. The study underscores the need for evidence-based practices and interventions to promote employee well-being and cultivate a thriving workforce in the dynamic landscape of the art industry. Moving forward, future research should explore longitudinal designs and qualitative methods to further elucidate the nuanced dynamics of employee well-being in creative professions and cultural contexts.

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Vol. 02, No. 05, May 2024: pp. 776-786


