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Workload and Technostress in Employee Wellbeing: Job Satisfaction Mediation and Digital Competence Moderation among Generation Z Banking Employees

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ABSTRACT
This study discusses a study to understand the relationship between workload and technostress and employee wellbeing in the digital banking setting among Generation Z employees in Indonesia using the Job Demands-Resources (JD-R) framework. The particular focus of the study is job satisfaction as a mediating factor between workload and technostress and employee wellbeing and digital competence as a personal resource that might modulate the between-job-satisfaction and employee-wellbeing relationship. This was a quantitative cross-sectional survey, wherein a five-point Likert scale questionnaire was used, which was based on existing measurement scales. Non-probability purposive sampling was used to collect 262 valid responses from Generation Z employees who were working or on an internship in the banking sector in Indonesia. Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.1.1.8 was used to analyze the data. The results show that workload and technostress have negative and significant negative associations with employee wellbeing and job satisfaction, and job satisfaction has positive and significant associations with employee wellbeing. The correlation between workload and technostress with employee wellbeing also mediated significantly through job satisfaction. Conversely, digital competence does not have a strong positive direct relationship with employee wellbeing, and the relationship between it and job satisfaction is not found to be statistically meaningful. Therefore, there is no moderating effect of digital competence as hypothesized. The research makes a contribution as the traditionally and technology-associated job demands are combined to be applied in a well-structured framework of JD-R and the empirical research is further extended to the Generation Z workforce in the Indonesian banking industry that relies heavily on technology.

Keywords: Employee Wellbeing, Workload, Technostress, Job Satisfaction, Digital Competence, Generation Z, Indonesia's Digital Banking Workplace, Job Demands-Resources Theory.
JEL Code: J24, J28, M12, G21, O33.

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I. Introduction

One of the factors of change in banking, whether at the international scale or at Indonesia, is digital change (Daeli et al., 2025). Mobile banking, core banking technologies, and artificial intelligence with other digital technologies have altered bank work design and delivery (Kitsios et al., 2021). A more rapidly changing world of systems, processes, customer demands, and service operations is causing workers to work more. Generation Z is especially applicable to this context as this group is entering into operating and customer-facing positions more frequently and is growing up in digitally saturated settings (Benítez-Márquez et al., 2022; Nesindande et al., 2024; Yılmaz et al., 2024). Meanwhile, employee well-being has already become an important concern of organizational significance, as it is associated with productivity, retention, and long-term organizational operations (Staniškienė et al., 2026). The fact that the digital economy is rapidly becoming more digital provides further relevance to studying such work-related processes (Plekhanov et al., 2023). Indonesia, which is defined as one of the fastest-growing digital economies in the ASEAN region, boasts a reported USD 90 billion in digital economy as of 2024, and in 2030, it is set to reach USD 360 billion (Dukungan Transformasi Digital Dalam Mengakselerasi Pertumbuhan Ekonomi Nasional, n.d.). The introduction of digital financial services, which has been experienced with the introduction of the Quick Response Code Indonesian Standard (QRIS), is associated with the rising adoption of digital technology to be incorporated in a financial system in Indonesia. As of the first semester of 2025, Bank Indonesia reported that almost 57 million consumers and 39.3 million vendors had adopted QRIS, 93.16% of which were micro, small, and medium enterprises. The need to have these innovations suggests the rise to the top of the digital finance structure and the subsequent change of the environment in which the work in a sphere of finance takes place (Bank Indonesia, 2025). The above developments reflect the dramatic change in digital transformation that also brings more digitized environments that compel employees to continuously adapt to the changes in technology.

At the same time, the World Economic Forum (2025) reported that a two-thirds majority of worldwide institutions acknowledged that increasing employee health and wellbeing were the most critical approach to augmenting talent supply, dropping to the ninth spot in 2023 to the top priority in 2025 (The-Future-of-Jobs-Report-2025, 2025). The indicators of these innovations are proof that digital transformation is not just the technological advancement and functionality, but the enhancement of employee wellbeing as one of the business assets. This is specifically applicable in the digital banking industry where mass usage of technology and the ongoing developments have become a precondition in the daily workload by the employees. Thus, the relevance of the impact of the workload, technostress, job satisfaction, and level of digital proficiency concerning the wellbeing of the employees has become an even greater concern. Although digitalization can promote work performance, it changes the nature of work requests. Employees working in technology-intensive workplaces can encounter both high levels of task volume alongside technology-related strains, such as the need to constantly change systems, complexity, interruptions, and the need to be responsive to digital systems (Battisti et al., 2022; Hang et al., 2022). This is especially relevant to banking, a domain in which the quality of service is to be delivered, but digital processes are being developed. The literature is available that indicates that workload can determine job satisfaction and employee performance, but technostress can affect psychological wellbeing and work-related performance (Khalequzzaman et al., 2025; Demerouti, 2025). However, less clear is the functioning of the standard and technological demands of one another through an affective work mechanism among employees of Generation Z in a banking profession. The gap in the research, thus, is not only to determine whether having workload or technostress is a cause of poor employee wellbeing, but how the two types of job demands can be put in opposition, and how perceptions of employees towards their work can influence this situation.

Although previous studies have demonstrated the importance of job demands and job resources in explaining employee wellbeing, based on the Job Demands-Resource (JD-R) model, the role of workload and technostress as independent but interrelated demands within digitally intensive work practices has received minimal attention. More to the point, there is no clarity as to whether job satisfaction is a common

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psychological process, in which these demands are linked to wellbeing, and whether the digital competence of employees changes the process. It is particularly worrying to the members of Generation Z, as well as interns in the banking field, where employment is increasingly dependent on digital systems and structures, being always available, and technologically enabled work. Digital competence can also allow employees to deal with technological needs more efficiently, but it might not be limited to alleviating the challenge of technology. It may also influence how employees can convert positive thoughts about their work to the more generic wellbeing experiences. The paper is meant to do so within this background and explain the relationships between workload, technostress, job satisfaction, digital competence, and employee wellbeing among Generation Z employees and interns in the Indonesian banking industry. The article does not present a new theoretical approach but to a digitally intensive organization in that the workload and the technostress as job demands, job satisfaction as an intermediate psychological process, and digital competence as one potential personal resource of the satisfaction- wellbeing relationship. Hopefully, the findings will contribute more insight into the staff wellbeing in digital intensive workplaces and provide the human resource managers with practical information about the necessity to cope with excessive workloads, stress on them due to the use of technology, and how it influences their employees in their daily working experiences.

II. Literature Review and Hypothesis Development

2.1. Grand Theory: Job Demands-Resources (JD-R) Theory

Job Demands-Resources (JD-R) theory is an AT model that clarifies employee wellbeing and work performance by citing the interaction of job demands and job resources provided to employees at work (individual and organizational levels) (Bakker et al., 2026). The theory is a two-process theory based on complementarity. The health-impairment process indicates that chronic demands utilize both physical and psychological energy and might lead to strain and worse wellbeing. The motivational process implies that resources assist employees to address demands and stay motivated, resilient, and achieve positive outcomes of working (Andolšek et al., 2026). Contemporary JD-R research also recognizes that demands and resources can be ascribed to different spheres and personal resources might affect the responses of employees toward the work environment. Workload is a conventional work demand, technostress is a technology-specific demand, job satisfaction is a proximal psychological state where demands can be transformed into wellbeing, and digital competence is explored as an individual resource (Apenbrink et al., 2026; Galanakis et al., 2022). The joint specification allows not only to ascertain whether the demands relate to wellbeing, but to also ascertain whether the relationships between them operate through job satisfaction and whether the digital competence alters the strength of the correlation between the satisfaction and wellbeing

2.2. Workload

Workload is the amount and nature of workload that employees feel that they must get done within a specific period of time. In JD-R theory, workload is a job demand because one must exert long-term physical and mental efforts to meet the high job requirements. It is important to note that the amount of objective tasks is not the only factor that determines the workload; the sense of adequate resources available to employees also matters (Inegbedion et al., 2020). Employees might feel drained, unhappy, and less healthy when the demands are continually greater than the available resources (Andolšek et al., 2026; Bakker et al., 2026). Research in the banking and respective service setting also reveals that the overwork conditions are relevant to the satisfaction level of the employees, their stress, and their wellbeing (Demerouti, 2025; Sibindi et al., 2025). The current study thus considers workload as a traditional job demand that can be linked to the wellbeing of workers either directly or indirectly via job satisfaction. H1 and H2 are the results of this argument.

H1 : Workload negatively affects employee well-being.

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H2 : Workload negatively affects job satisfaction.

2.3. Technostress

Technostress is a psychological, emotional, and physiological stress associated with the challenges, pressures, and disruptions brought about by digital technologies at work. Other typical examples of techno-stressors include techno-overload, techno-invasion, techno-complexities, techno-insecurity, and techno-uncertainty (Borle et al., 2021). Technostress is usually associated with worse mental health and work performance, yet technology-associated issues may also have dissimilar consequences based on the resources that employees have at hand (Dragano et al., 2020; Wang et al., 2025). With JD-R in mind, the application of the technostress concept could be viewed as one of the technology-related occupational demands that drain mental and emotional energies as long as employees need to adapt constantly and to new technological challenges (Bakker et al., 2026; Zito et al., 2021). These forces might impact employee wellbeing and their attitude toward work in digital banking, where technology is implemented alongside day-to-day services and tasks. The present study assumes that there will be a negative relationship among technostress, employee wellbeing, and technostress and job satisfaction, leading to H3 and H4.

H3 : Technostress negatively affects employee well-being.
H4 : Technostress negatively affects job satisfaction.

2.4. Job Satisfaction

The general employee appraisal of work is job satisfaction, which refers to the two types of cognitive and affective evaluations of workplace experience (Lepold et al., 2018; Golz et al., 2021). This results in job satisfaction in the existing JD-R and is not a related job demand or resource but a proximal psychological process that could possibly relate to demanding work conditions and well-being. According to previous evidence, job satisfaction has the potential to mediate the association between job demands and work conditions and employee outcomes (Claes et al., 2023; Awwad et al., 2022). This position can be applied to theory because workload and technostress could affect the way employees evaluate their work and subsequently the evaluations are transferred to their psychological well-being. The model will hence also investigate the direct relationships of both the workload and the technostress with the wellbeing and the indirect relationships of both the workload and the technostress with the workplace wellbeing via the job satisfaction. This is built-in rationale that results in H5, H6, and H7.

H5 : Job satisfaction positively affects employee wellbeing.
H6 : Job satisfaction mediates the relationship between workload and employee well-being.
H7 : Technostress mediates the relationship between technostress and employee wellbeing.

2.5. Digital Competence

The competence of employees to use digital technologies to handle work, communication and collaboration, digital problem solving, and adapt to the changing digital environments can also be described as digital competence (Zhang et al., 2026; Bueno et al., 2024). In the JD-R model, individual resources influence how employees cogitate and respond to work environments that are strenuous. Digital competence can assist workers in digital-intensive workplaces to complete technology-related tasks and minimize the challenges related to digital working demands (Golz et al., 2021). However, digital competence does not necessarily intend to directly positively influence wellbeing. Rather, it is relevant to this study since it can be utilized to increase the extent to which good job appraisals can be translated into wellbeing. When employees feel more competent towards using digital technologies, they can have fewer operational problems and feel more

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confident to do technology-mediated tasks, and the subsequent beneficial impacts of job satisfaction can be spread further to their general wellbeing. Digital competence is then considered as a boundary condition that may have an impact on the strength of the job satisfaction and employee wellbeing relationship. However, the mechanism proposed is empirical and thus needs to be tested and not assumed theoretically. H8: The hypothesis will state that the positive relationship between job satisfaction and employee wellbeing is stronger in the high level of digital competence.

H8 : Digital competence moderates the positive relationship between job satisfaction and employee well-being, such that the relationship becomes stronger when employees possess higher levels of digital competence.

2.6. Employee Well-Being

Employee wellbeing refers to the mental, physical, and social level of employees and is a broader measure of positive functioning and the non-occurrence of distress than job satisfaction itself (Martela, 2025). The interdependence between the requirements and resources in the JD-R framework is a major result of wellbeing. The continuous drainage of energy may hinder wellbeing in case job demands are high in comparison to the resources to which employees can react, yet sufficient resources may assist to shield the employees against impulse and improve even more joyful functioning (Andolšek et al., 2026; Bakker et al., 2026). This is because the gap between job satisfaction and wellbeing is critical in this study. Job satisfaction is the measurement of employees regarding the job and work experience, whereas employee wellbeing is the holistic psychological, physical, and social performance of employees. Job satisfaction, in this aspect, is laid as an intermediate psychological process wherein the workplace might exert an impact on the overall wellbeing of the employees. Job satisfaction and wellbeing are related to how employees assess their job, and a more comprehensive assessment of their mental and work-related performance, respectively (Claes et al., 2023). The ultimate endogenous variable of the proposed model is thus employee wellbeing.

Figure 1 presents the proposed theoretical framework developed based on the relationships outlined in the hypotheses.

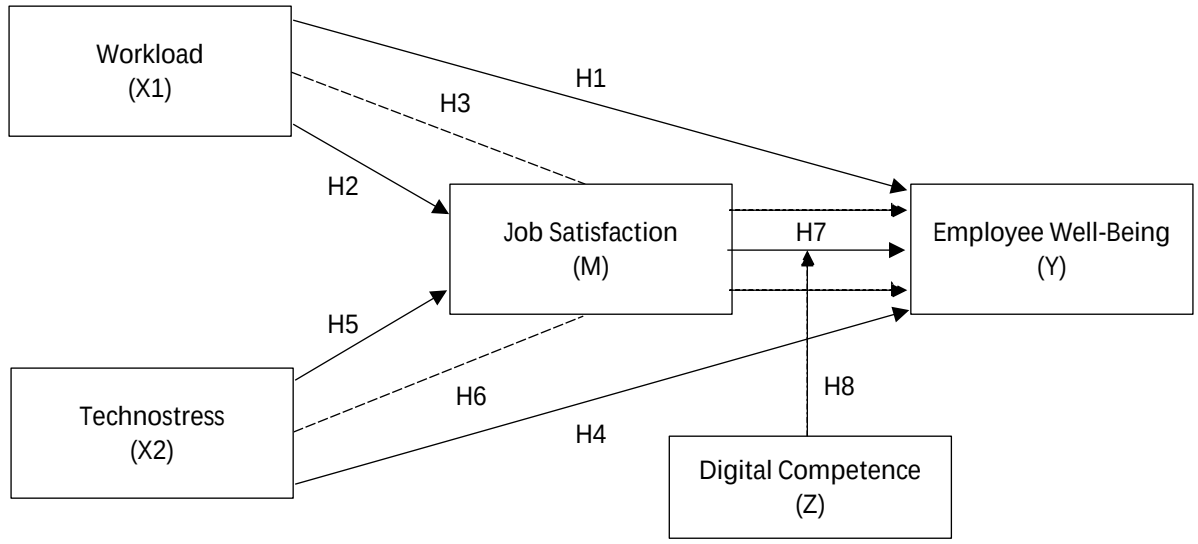


Figure 1. Conceptual Framework

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III. Research Method

3.1. Data Collection Procedures

This study utilized a quantitative survey adoption cross-sectional study design to address the connections between workload, technostress, job satisfaction, digital competence, and employee wellbeing among Generation Z employees working in the banking industry in Indonesia. The research was conducted among Generation Z people born between 1997 and 2012, including those who were professionally or had professional internships in the banking industry. This study included permanent, contract, and intern workers as a means to capture the employment experiences of Generation Z workers in diverse employment schemes. The purposive sampling technique non-probability was applied, wherein the participants were selected based on the stipulated set of criteria, that is, a Generation Z member who worked or got an internship in the banking sector at the time of data collection. The valid responses were 262, which were screened and analyzed. A self-administered questionnaire with the study constructs and measured on a five-point Likert scale was used to collect the data. The stability of the retained sample was considered to be enough to PLS-SEM on a well-known ten times heuristic that considers the maximum amount of directed paths to get to an endogenous construct of the proposed model. The data were collected at a single time; hence, the findings can be perceived as a relationship between the investigated variables rather than a determination of time or causal influences because the research undertaken was cross-sectional and self-reported. One should also be careful about having the presence of common-method influences due to having a single questionnaire. To this end, the analysis revolves around the approximated structural relationships in the proposed model without causal assertions.

3.2. Measurement Scale

Five constructs, that is, workload, technostress, job satisfaction, digital competence, and employee wellbeing, were contained in the research tool. The measurements of all constructs were on a five-point Likert scale, which ranged from 1 (strongly disagree) to 5 (strongly agree). The items of the questionnaire were rephrased using available tools and included alterations to the banking and Generation Z setting, but the conceptual value of the original constructs was retained. Workload was operationalized according to work volume, time limit, and assignment (Zacher and Rudolph, 2024). Digital overload, digital complexity, digital intrusion, and digital ambiguity were classified as technostress (Fischer et al., 2021). Job satisfaction was the measurement of job, work environment, and job fulfilment satisfaction (Zhang et al., 2024). Digital competence encompassed digital literacy, communication and collaboration, digital problem solving, and digital adaptation (Vuorikari et al., 2016). Workplace wellness was psychological wellness and employee wellbeing (Alkhayyal et al., 2024). There are five constructs that are evaluated in this research tool. The following parameters are used to estimate the workload: work volume, time constraints, and allocations (Zacher & Rudolph, 2024). Digital overload, digital complexity, digital intrusion, and digital ambiguity measure technostress (Fischer et al., 2021). The level of job satisfaction is determined by the degree to which an individual is satisfied with the work, work conditions, and the degree to which the individual is satisfied with the job overall (J. Zhang et al., 2024). Digital literacy includes digital competence, digital communication and collaboration, digital problem solving, and digital adaptation (Vuorikari et al., 2016). Lastly, the attitudes of workload, technostress, job satisfaction, digital competence, and overall employee wellbeing can be coupled in five constructs to gauge employee wellbeing (Alkhayyal and Bajaba, 2024) as illustrated in Table.

Table 1. Measurement of Constructs

Construct	Description	Source	Number of Items
Workload	Assesses employees' perceptions of the volume of work required, time	Zacher and Rudolph (2024)	4

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	constraints associated with task completion, and the demands of job assignments relative to their perceived capabilities.		
Technostress	Assesses the level of stress employees experience from using digital technologies, including technology-related overload, complexity, intrusion into personal life, and uncertainty arising from changes to or problems with digital systems.	Fischer et al. (2021)	5
Job Satisfaction	Assesses employees' levels of satisfaction with their work, working environment, and overall job experience.	Zhang et al. (2024)	5
Digital Competence	Assesses employees' proficiency in using digital technologies, including digital literacy, digital communication and collaboration, technology-related problem-solving, and adaptation to changes in digital systems.	Vuorikari et al. (2016)	5
Employee Well-Being	Assesses employees' well-being through indicators of positive psychological functioning and perceptions of a supportive workplace environment that promotes comfort, health, and positive work experiences.	Alkhayyal and Bajaba (2024)	4

3.3. Data Analysis

SmartPLS 4.1.1.8 using partial least squares structural equation modeling (PLS-SEM) was used to analyze the data. There were two steps of analysis. The first thing they needed to do is to identify the reliability of the measurement model that the indicators could measure their respective constructs. Second, the structural model was tackled to ensure that the relationship between the variables brought in the research framework were addressed. This was done in this order to determine the validity and reliability of the measures prior to the interpretation of the structural relationship. Measurement model The reliability of indicators was assessed in the case of the measurement model with the help of the outer loading, and assessed with Cronbach alpha and the composite reliability, internal consistency. Average Variance Extracted (AVE) was used as the measure of convergent validity. The Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratio were used to measure discriminant validity, as it was necessary to determine that the constructs were different. The tests were to determine whether the indicators that were retained provided an appropriate measure of the study constructs. After the measurement model was tested, the structural model was also tested to establish whether all of the proposed relationships were indeed true between workload, technostress, job satisfaction, employee wellbeing, and digital competence. The direction and significance of the hypothesized relationships were analyzed in terms of path coefficients, t-values, and p-values, whereas R 2 was used to determine the model in terms of its explanatory power in relation to the endogenous constructs.

Mediation and moderation tests were also conducted to examine whether job satisfaction mediated the relationships between job demands and employee well-being and whether digital competence moderated the nature of the job satisfaction-employee well-being association. These procedures together were a base that evaluated the quality of measurement model along with the relationships as hypothesized

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by the research. A bootstrapping test with 5,000 subsamples was performed to test the statistical significance of the postulated relationships. The effect of workload and technostress on job satisfaction and employee well-being was directly investigated, and the effect of job satisfaction on employee well-being was investigated based on the structural model. This meditated to determine whether job satisfaction is an intervening variable mediating (relating) the relationships between workload and technostress and employee well-being. Additionally, digital competence was also tested using as a moderator between job satisfaction and employee well-being to establish whether the discipline of digital competence of the workers alters the levels of this relationship. The statistical significance level was set at 5%, wherein p <.05 and t >1.96 are the values of significance (Hair et al., 2021). The relationships and the mediation and moderation mechanisms under the structural model to establish the direct, indirect, and interaction effects were tested using their estimated path coefficients and t- and p-values.

IV. Result and Discussion

4.1. Respondent Profile

Table 2. Respondent Profile

Category	Subcategory	Frequency (n)	Percentage (%)
Gender	Male	112	42.7
	Female	150	57.3
Age	18–21 years	48	18.3
	22–25 years	112	42.7
	26–29 years	102	38.9
Education Level	High School or Equivalent	73	27.9
	Diploma	76	29.0
	Bachelor's Degree	103	39.3
	Master's Degree	10	3.8
Work Experience	Less than 1 year	133	50.8
	1–3 years	95	36.3
	4–6 years	28	10.7
	More than 6 years	6	2.3
Employment Status	Permanent Employee	101	38.5
	Contract Employee	106	40.5
	Intern	55	21.0
Position	Account Officer	7	2.7
	Bank Office Staff	30	11.5
	Credit Analyst	3	1.1
	Customer Relationship Officer	7	2.7
	Customer Service Representative	42	16.0
	Funding Officer	10	3.8
	Back Office Intern	13	5.0
	Customer Service Intern	10	3.8
	Marketing Intern	19	7.3
	Operations Intern	13	5.0
	Relationship Officer	7	2.7
	Administrative Staff	29	11.1
	IT Support Staff	5	1.9
	Credit Staff	7	2.7

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Category	Subcategory	Frequency (n)	Percentage (%)
	Marketing and Funding Staff	5	1.9
	Operations Staff	25	9.5
	Teller	30	11.5

The respondent-based profile is a representation of the sample size concentrated among younger Generation Z workers. The largest age group was 22–25 years (112 respondents; 42.7%), followed by 26–29 years (102; 38.9%) and 18–21 years (48; 18.3%). The most educated group (103; 39.3 percent) was the bachelors degree holders. Over half of all respondents had less than one year of employment (133; 50.8) and contract workers constituted the largest employment-status group (106; 40.5). The greatest number of respondents was 30 each to Bank Office Staff and Teller (11.5%). The traits indicate that the sample contains primarily young-career Generation Z workers who are working in operational and customer-facing positions in banking.

4.2. Measurement Model Assessment

Table 3. Measurement Model Assessment

Construct	Outer Loading	Cronbach's Alpha	Composite Reliability (CR)	AVE
Workload	-	0.877	0.882	0.729
WL1	0.853			
WL2	0.844			
WL3	0.868			
WL4	0.851			
Technostress	-	0.925	0.929	0.769
TS1	0.896			
TS2	0.873			
TS3	0.884			
TS4	0.871			
TS5	0.862			
Job Satisfaction	-	0.872	0.872	0.661
JS1	0.809			
JS2	0.806			
JS3	0.830			
JS4	0.795			
JS5	0.826			
Employee Well-Being	-	0.805	0.807	0.632
EW1	0.800			
EW2	0.819			
EW3	0.794			
EW4	0.765			
Digital Competence	-	0.908	0.939	0.718
DC1	0.786			
DC2	0.872			
DC3	0.838			
DC4	0.891			
DC5	0.846			

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The resources of indicator reliability, internal consistency, and convergent validity in Table 3 are acceptable. The outer loadings are between 0.765 and 0.896, and all the indicators are above the generally agreed upon 0.70 mark. The alpha of Cronbach ranges between 0.805 and 0.925, and the, and reported values of composite reliability are greater than the recommended value of all the constructs. The standard deviation of the AVE values falls in the range of 0.632 and 0.769, with all the constructs exceeding 0.50. The results above indicate that the retained indicators are adequate to scale the latent constructs that they represent, and that the measurement model has high inter-rater consistency. Table 4 indicates that there is satisfactory discriminant validity. The square root of the AVE of each construct is bigger than the inter-construct correlations that are used to satisfy the Fornell-Larcker criteria. The values of the HTMT are 0.078 to 0.555 (and still below the 0.85 conservative threshold). Taken together, these results indicate that there are empirical differences between the constructs of the current sample.

Table 4. Discriminant Validity Assessment

Construct	fornell larcker criterion					Heterotrait-Monotrait Ratio					
	1	2	3	4	5	1	2	3	4	5	6
Digital Competence	0.847	-	-	-	-	-	-	-	-	-	-
Employee Wellbeing	-0.084	0.795	-	-	-	0.090	-	-	-	-	-
Job Satisfaction	0.082	0.467	0.813	-	-	0.103	0.555	-	-	-	-
Technostress	0.064	-0.396	-0.241	0.877	-	0.078	0.456	0.267	-	-	-
Workload	0.086	-0.354	-0.418	-0.090	0.854	0.092	0.418	0.475	0.115	-	-

Table 4 shows that the diagonal Fornell-Larcker value is larger than the value associated with individual constructs, and all the reported HTMT ratios are fairly low (less than 0.85). This further demonstrates that the conceptually unique constructs are represented by Workload, Technostress, Job Satisfaction, Digital Competence, and Employee Wellbeing.

4.3. Structural Model Assessment

Table 5. R Square

Construct	R^2	Adjusted R^2
Employee Well-Being	0.372	0.360
Job Satisfaction	0.253	0.247

Table 5 shows the endogenous coefficient of determination (R^2) of the two endogenous constructs. The adjusted R^2 and R^2 of employee wellbeing are 0.372 and 0.360, respectively, implying that the predictors contained in the model account for 37.2 percent change in employee wellbeing. Job Satisfaction has an R^2 and adjusted R^2 of 0.253 and 0.247, respectively, which means that Job Satisfaction is explained by both Workload and Technostress with 25.3 percent variance. These values suggest that the proposed model attributes a causal level of variation in the endogenous constructs and that there exist additional organizational, personal, and contextual components that are not captured by the model.

Table 6. Direct Effects

Relationship	Original Sample (O)	Standard Deviation (STDEV)	T statistics (|O/STDEV|)	P-Values
DC → EW	-0.058	0.067	0.867	0.193

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Relationship	Original Sample (O)	Standard Deviation (STDEV)	T statistics (|O/STDEV|)	P-Values
DC x JS → EW	-0.074	0.058	1.285	0.099
JS → EW	0.281	0.061	4.584	0.001
TS → EW	-0.345	0.051	6.778	0.001
TS → JS	-0.281	0.056	4.995	0.001
WL → EW	-0.257	0.060	4.264	0.001
WL → JS	-0.443	0.048	9.284	0.001

Source: Author's compilation (2026).

Table 6 shows that the conventional workload and technology-related requirements are more likely to be linked to negative consequences in the specified structural paths, in comparison to digital competence. Workload and job satisfaction (β = –0.443) are the most substantial, followed by the negative relationship between technostress and employee wellbeing (β = –0.345). Table 6 presents the direct relationships. Job satisfaction is positively associated with employee wellbeing (β = 0.281, t = 4.584, p = 0.001). Technostress is negatively associated with employee wellbeing (β = –0.345, t = 6.778, p = 0.001) and job satisfaction (β = –0.281, t = 4.995, p = 0.001). Workload is negatively associated with employee wellbeing (β = –0.257, t = 4.264, p = 0.001) and job satisfaction (β = –0.443, t = 9.284, p = 0.001). Digital competence has no statistically significant direct relationship with employee wellbeing (β = –0.058, t = 0.867, p = 0.193), and the interaction between digital competence and job satisfaction is not statistically significant (β = –0.074, t = 1.285, p = 0.099). The direct-effect results support H1–H5 and do not support the hypothesized direct role of digital competence or moderation in H8.

4.4. Mediation Analysis

The mediation analysis indicates that job satisfaction greatly bears part of the negative associations between the two job demands and employee wellbeing. The indirect relationship between technostress and employee wellbeing through job satisfaction is negative and significant (β = –0.079, t = 3.061, p = 0.001), whereas the indirect relationship between workload and employee wellbeing through job satisfaction is found to be negative and significant (β = –0.125, t = 4.104, p < 0.001). H6 and H7 are supported by these results. The pattern is consistent with complementary or partial mediation in the existing model, as both corresponding direct relationships are also interesting, yet the absence of temporal and causal mediating process is due to the cross-sectional design.

Table 7. Specific Indirect Effects

Relationship	Original Sample (O)	Standard Deviation (STDEV)	T statistics (|O/STDEV|)	P-Values
TS -> EW	-0.079	0.026	3.061	0.001
WL -> EW	-0.125	0.030	4.104	0.000

4.5. Discussion

The results indicate that workload and technostress are negatively associated with employee well-being, which means that the heightened work demands are complemented by poor well-being among Generation Z employees in the banking sector. Job satisfaction has a stronger negative relationship with workload (β = –0.443) than with employee well-being (β = –0.257). This tendency means that although the effects of work overload cannot be seen at first glance, they may be noticed by attitudes of employees to their work. When the workers are reminded of having to do too much or have too demanding a working schedule,

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their initial response can be lowered levels of satisfaction with the work, which can subsequently be related to reduced well-being. The findings suggest that workload is not only an issue of the amount of work the employees are expected to do but is also related to the experiences and perceptions the employees have in their day-to-day working conditions. The same trend can be applied to technostress. Both job satisfaction ($\beta = -0.281$) and employee well-being ($\beta = -0.345$) have a negative relationship with technostress, indicating that the pressures that come with technology can be channeled in different forms, as opposed to the failure to use the digital systems effortlessly. In the example of employees of the Generation Z individuals, who are employed in the banking industry, technology has entered their routine, but their constant system dependence, being digital and compelled to operate the transforming technologies could be an additional burden as well. In this regard, familiarity to technology does not always ensure that the employees are not susceptible of technology related strain. Excessive or excessive demands that are too difficult to properly manage due to digital requirements can have consequences on how the employees are perceived, both of their work and well-being. Meanwhile, job satisfaction is positively correlated with employee well-being ($\beta = 0.281$, $p = 0.001$) and dominates some of the impacts of both workload and technostress on well-being. The indirect workload impact via job satisfaction ($\beta = -0.125$, $p < 0.001$), as is the indirect effect of technostress ($\beta = -0.079$, $p = 0.001$).

The findings imply that mediation is partial because the short-term effects of workload and technostress on wellbeing have significant effects. In other words, job satisfaction describes, although not the full extent, of the correlation between strenuous work features and the wellbeing of employees. This observation highlights the importance of day-to-day ratings of employees towards their work. Improving employee state by decreasing workload or pressure of technology can have a positive impact, but these efforts may have a minor effect on the wellbeing when the employees have an adverse experience at work. Wellbeing at the workplace thus seems to be based on the challenges that employees face, and the perceptions and experiences they have based on such challenges in their day-to-day work. The findings concerning digital competence present a different picture. Digital competence has no significant direct relationship with employee wellbeing ($\beta = -0.058$, $p = 0.193$), and its interaction with job satisfaction is also not significant ($\beta = -0.074$, $p = 0.099$). Hence, it is not always true that more digitally capable employees indicate higher levels of wellbeing, and digital competence does not appear to add to the beneficial association between job satisfaction and wellbeing in this sample. One of the reasons is that digital competence may allow employees to achieve particular tasks that depend on technology more comfortably, but it may not be sufficient to counterbalance much bigger sources of pressure, such as workloads, high performance expectations, and others regarding the workplace. In this case, digital competence has a possibility of playing the part of aiding the work with the tasks so that one does not need to change the overall experience of the employees in relation to their jobs. Overall, the findings suggest that the wellbeing of Generation Z employees in the banking sector is related to the stresses that these employees experience as well as their perceptions of their job rather than the connection between their job and digital competence.

V. Conclusion

This study demonstrates that workload and technostress are significant sources of stress among Generation Z employees in Indonesia's digital banking sector, negatively affecting job satisfaction and employee well-being. The findings further highlight the crucial role of job satisfaction in the relationship between job demands and employee well-being, as it mediates the effects of workload and technostress on well-being. These results are consistent with the health-impairment process of the Job Demands-Resources (JD-R) model, which posits that sustained job demands can deplete employees' psychological resources and adversely affect their work experiences and well-being (Bakker et al., 2026; Demerouti, 2025). The findings also emphasize the importance of job satisfaction as a proximal psychological mechanism through which unfavorable working conditions can influence employees' overall well-being (Awwad et al., 2022; Lin et al., 2024). However, digital competence does not significantly moderate the relationship between job satisfaction

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and employee well-being, indicating that higher levels of digital competence do not necessarily strengthen the positive association between job satisfaction and well-being. Although digital competence may help employees use technology more effectively, its contribution to well-being may depend on specific relationships, job demands, and organizational contexts. Overall, this study extends the application of the JD-R model to the digital banking sector by examining conventional job demands and technology-related demands within an integrated framework and demonstrating their implications for employee well-being through job satisfaction.

From a theoretical perspective, this study contributes to the JD-R literature in three ways. First, it conceptualizes workload and technostress as distinct but related job demands, recognizing that employees in digitally intensive workplaces face both conventional workload pressures and technology-related challenges. Second, the findings establish job satisfaction as an important psychological pathway linking these demands to employee well-being, extending previous research on the role of employees' workplace experiences and psychological appraisals in shaping work-related outcomes (Awwad et al., 2022; Lin et al., 2024). Third, the nonsignificant moderating role of digital competence provides a more nuanced understanding of personal resources within the JD-R framework. Rather than assuming that individual resources consistently strengthen positive relationships between work-related factors, the findings suggest that their effects may vary depending on the relationships examined, the demands encountered, and the organizational context (Vuorikari et al., 2016; Natasha et al., 2025). These insights provide a foundation for future research investigating the conditions under which digital competence contributes to employee well-being and the circumstances in which its influence may be limited. From a managerial perspective, the findings suggest that managers in the digital banking sector should address both workload and technological conditions under which employees perform their tasks. Workload management can be improved through realistic task allocation, reasonable performance expectations, transparent work procedures, and adequate staffing. Technostress can be reduced by providing reliable digital tools, responsive technical support, and effective technology implementation and training (Zacher & Rudolph, 2024; Fischer et al., 2021). Given the important role of job satisfaction in employee well-being, organizations should also improve employees' overall work experiences by fostering supportive supervision, recognizing employee contributions, providing meaningful work, and creating opportunities for career development (Awwad et al., 2022; Lin et al., 2024). Furthermore, the nonsignificant moderating effect of digital competence suggests that digital training alone should not be relied upon as a primary intervention for improving employee well-being. Instead, organizations should adopt a more comprehensive approach that combines appropriate workload management, adequate organizational support, reliable technological systems, and improvements in the overall quality of employees' work experiences.

AI Disclosure

The authors used generative artificial intelligence (AI), specifically ChatGPT, to assist with language refinement and improving the clarity of the manuscript. The use of AI was limited to supporting the writing process and did not involve generating research data, conducting statistical analyses, or interpreting the empirical findings. All AI-assisted content was reviewed and verified by the authors, who take full responsibility for the accuracy, originality, and integrity of the manuscript.

Author Contribution

Alfin Rahmat was responsible for conceptualization, research methodology, data collection, formal analysis, investigation, and manuscript preparation. Muhammad Husain contributed to research supervision, methodological guidance, validation, critical review, and manuscript editing. Both authors contributed to the development of the research, reviewed the final manuscript, and approved its submission for publication.

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