Examining the Relationship Between Employee Well-Being and Retention with Mediating Effect of Job Satisfaction among Generation Z

Sariveni Elangovan[1]*, Shazaitul Azreen Rodzalan[1], Noraini Sariyon[1]

[1] *Department of Technology and Management, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, 86400, Batu Pahat, Johor, MALAYSIA*

*Corresponding Author: gp210049@student.uthm.edu.my

Abstract

The employee turnover rate increases drastically. Since employee turnover is rising drastically, keeping current employees is essential to the success of an organization. Employee well-being is an essential factor of retention, particularly for Generation Z, who frequently want workplaces that are flexible. However, because of Industry 4.0, a lot of organizations are moving to digital workplaces. Employee morale, productivity, and general performance are all negatively impacted by job or well-being dissatisfaction, which increases turnover. Therefore, this study aims to examine the relationship between employee well-being and employee retention with mediating effect of job satisfaction in digital workplace among Generation Z. The employee well-being factors is measured based on PERMA theory. The targeted respondents for this study are Generation Z who are working at manufacturing industries in Johor Bahru. Data was collected and analysed quantitatively using Preacher and Hayes mediation analysis, SPSS, and Spearman correlation. The findings indicate that there is a positive relationship between employee retention and employee well-being and mediated by job satisfaction. Data was collected and analyzed quantitatively using Preacher and Hayes mediation analysis, SPSS, and Spearman correlation. This research offers useful insights on how well-being efforts might enhance job satisfaction and retention for stakeholders, including manufacturing industries and Generation Z employees.

1. Introduction

Industry 4.0 has revolutionised traditional manufacturing processes by introducing networked devices, machine learning, and autonomous robots, setting the way for new manufacturing approaches (Valenduc & Vendramin, 2016). It combines intellectual processes and products with automated data collection and analysis. The implementation of smart, creative, and efficient processes has created a critical need for today's workforce to continually learn new skills and adapt to changing roles (Buer, Strandhagen & Chan, 2018). For example, modern raw material practices now employ advanced technical techniques such as 3D printing and simulations. The widespread adoption of digital-first methods has accelerated this evolution. According to Foundry's Digital Company Study (Foundry, 2021), 91% of firms have or intend to implement a digital-first company strategy. While Industry 4.0 technologies promise increased productivity and competitiveness, many organisations prioritise technological developments over human issues like employee adaptation and well-being. This lack of planning has created significant challenges, particularly for Generation Z employees, who are increasingly suffering from

digital burnout (Fleming, 2021). The challenges for organisations are to attract, retain, and motivate Generation Z employees who are satisfied and loyal to their positions and contribute to the organisation's goals. If digitalisation is done correctly, it can enhance employee retention by fostering innovation and providing flexible work environments. However, when poorly executed, it can result in employee dissatisfaction, burnout, and higher turnover rates, particularly among Generation Z, who value meaningful work experiences and well-being. Employee well-being is important for increasing job satisfaction and loyalty. According to Hennicks, Heyns & Rothmann (2022), employee well-being plays significant in increasing job satisfaction and reduces turnover intentions. Furthermore, highlighting employee well-being can prevent burnout and improve retention, especially in digitally demanding environments. Organisations that successfully integrate technology improvements with employee-centric initiatives are better positioned to withstand the challenges of global competition (Sheshadri, Vallabhaneni & Malhotra, 2024). Organisations can retain Generation Z employees while ensuring their long-term contentment and productivity by creating an environment that promotes both technological advancement and employee well-being.

2. Literature Review

This chapter reviews concepts and theories related to the variables of interest for this study. The chapter begins with underpinning theories, specifically focusing on the variables of employee retention, employee well-being, and the mediating effect of job satisfaction.

2.1 Employee Retention

The most valuable asset in an organisation can be its human capital. Therefore, it is crucial for an organisation to retain talented employees to help it succeed and grow in the future. Employee retention refers to an organisation's strategies for reducing employee turnover, as well as the practices it employs to retain its most important and valued employees (Baharin & Hanafi, 2018). Employee retention is a method of encouraging employees to stay with the organisation for a longer duration (Tirta & Enrika, 2020). According to Rakhra (2018), employees will leave the organisation when it is unable to attract and retain them. They may prefer to shift to a new company or find different work. Employees take their knowledge and skills from their previous employer when they leave, using them to provide competitive advantages to the new company they join. Finding a replacement for an employee who is equally skilled can be challenging for an organisation. Therefore, employee retention always aims for businesses to keep their top employees on board to succeed. The organisation is much more likely to achieve its long-term goals, which is growth, if employees are retained within the company. It generally refers to the many efforts used by organisations to encourage their employees to stay with them for a longer period of time (Singh, 2019). Employee retention is the most important indicator of an organisation's success, high productivity, and sustainability (McManus & Mosca, 2015).

2.2 Employee Well-being

All aspects of employee well-being are related to the PERMA theory, which includes positive emotion, engagement, relationships, meaning, and accomplishment. It is a progressive, need-based transformation among employees who prioritise their mental health over work. All organisational members' everyday jobs and personal circumstances have a direct impact on their well-being. This study attempts to bring clarity to the understanding of the concept of employee well-being. It is an important aspect of a healthy work environment and organisation. Well-being can also be referred to as wellness. The term "well-being at work" describes a person's subjective assessment of overall job satisfaction and positive feelings. It has also been proposed that conceptualisations of well-being at work include a component of social relationships, as this is an essential aspect of an individual's relaxing work experiences (Fisher, 2014). Employee well-being is a state in which employees experience pleasant emotions that enable them to be fully engaged in work activities (Vukelić & Čizmić, 2019). The ability of the workplace to promote well-being benefits both organisations and society as a whole (Khatri & Gupta, 2019). Given that work affects well-being and that well-being is vital for organisational performance, it is an organisation's best interest to support and promote well-being at work (Hone, Jarden & Schofield, 2014). An employee's well-being is an accelerator for organisational success and helps prevent lower productivity. In a previous study, employee well-being has been linked to job satisfaction, stress, organisational commitment, and work-life balance or imbalance (Sirgy & Lee, 2018). Employees feel appreciated and competent when their needs are met.

2.3 Job Satisfaction

Employee satisfaction is recognised as a key motivator of employee retention and productivity. Oktaviani & Sopiah (2022) defines job satisfaction as the nature and feeling of loving doing what one does. A few people enjoy working and consider it an important part of their lives. Others do not like working and only do so because they need to. Job satisfaction implies how much people appreciate their jobs. Job satisfaction is the most extensively researched

aspect of organizational behaviour (Anwar & Qadir, 2017). Understanding the level of job satisfaction is important for a broad range of reasons, and job satisfaction studies have an impact on both employees and organisations. Employees clearly prefer to be treated properly. Employees who feel valued and fulfilled at work may indicate positive treatment. Higher levels of job satisfaction can result in improved employee performance, which gives to better overall company outcomes (Belias & Koustelios, 2014).

2.4 The Relationship between Employee Well-being and Employee Retention

Many organisations recognise the value of improving workplace well-being. It not only affects firm performance and productivity, but it can also eventually influence employee retention. Well-being is measured through each element of the PERMA theory in this study. Positive emotion has been observed to influence turnover intention. According to Mohammad et al. (2014), emotional intelligence and emotions strongly influence an individual's intention to quit. Moreover, according to research, engaged employees are more likely to stay with their companies because it generates a sense of purpose, determination, and alignment with organizational goals. For example, Sahu, Pathardikar & Kumar (2018) found that transformational leadership increases employee engagement, which reduces turnover intentions in the IT sector. Informal social relationships in the workplace provide employees' emotional and psychological needs, resulting in increased job satisfaction and stronger intents to stay (Priyasad & Weerasinghe, 2017). Furthermore, Soren & Ryff (2023) emphasised that meaningful work strengthens the relationship between employees and their organisation, resulting in increased long-term retention. Recent research has investigated the relationship between accomplishment and employee retention. For example, Lee et al. (2024) discovered that newly hired nurses who felt a strong sense of accomplishment were less likely to leave because completion fostered resilience and professional confidence. Overall, the literature confirms that the PERMA well-being elements have a considerable impact on reducing turnover intentions and increasing employee retention.

2.5 The Relationship between Employee Well-being and Job Satisfaction

Although well-being depends on many factors, job satisfaction is crucial. Job satisfaction is frequently measured by how well results meet or surpass expectations. In this study, the PERMA model theory of well-being elements is used to examine the relationship between job satisfaction. Wan et al. (2022) found that employees who feel positive emotions at work had greater levels of job satisfaction and are more likely to perform better as a result of their improved emotional health. According to Watanabe et al. (2018), job satisfaction and work engagement are strongly positively correlated, especially when it comes to boosting employee senses of achievement. Yavuzkurt & Kiral (2020) discovered that instructors who had greater workplace relationships reported higher levels of internal job satisfaction, demonstrating the importance of peer support in improving work experiences. For instance, a meta-analysis by Allan et al. (2019) revealed a strong positive correlation between job satisfaction and perceived meaningfulness at work, highlighting the fact individuals who find their work meaningful are more engaged and feel more fulfilled in their roles. Hidayat et al. (2020) found that accomplishment, as a component of the PERMA model, mediates the relationship between accomplishment objectives and life satisfaction, reinforcing its function in increasing motivation and job satisfaction. In summary, these findings highlight the importance of providing a positive and meaningful work environment as a strategic strategy to increasing job satisfaction, which leads to better performance and long-term employee retention.

2.6 The Relationship between Job Satisfaction and Employee Retention

Employee retention is a important factor in an organisation's competitive advantage, as it affects efficiency, production, and sustainability. According to Azli (2019), employees are more likely to stay with companies that recognize their contributions and meet their personal requirements, such as fair salary, growth opportunities, and a supportive work environment. Furthermore, employee job satisfaction has a significant impact on an organisation's performance. According to Halim et al. (2021), variables such as a favourable workplace atmosphere and effective leadership communication contribute to job satisfaction, which in turn improves employee retention. Table 2.11 summarises past studies on the relationship between job satisfaction and employee retention. Biason (2020) found that employees who are satisfied with their roles and happy with their working environment are more committed to the organisation's success. Employees with high job satisfaction are more likely to continue contributing to their organisation's goals, resulting in higher retention rates. Nguyen & Duong (2021) support this claim, stating that high job satisfaction reduces turnover intentions because employees who feel satisfied with their jobs exhibit higher organisational commitment and motivation to remain in their roles. satisfaction ensuring employees remain engaged and committed to their roles. To retain employees, leaders should focus on improving their emotional intelligence to increase employee job satisfaction and employee retention (Alzyoud et al., 2019).

2.7 The Relationship between Employee Well-being and Employee Retention with Mediating Effect of Job Satisfaction

Recent research has shown the relationship between employee well-being and retention, highlighting the mediation role of job satisfaction. According to Gorgenyi-Hegyes, Nathan & Fekete-Farkas (2021), well-being is highly associated with job satisfaction and employee retention. The study discovered that employees who experience high levels of well-being at work exhibit greater loyalty to their employers, with job satisfaction serving as the mediating factor.

This aligns with Mackinnon et al. (2007) mediation framework. Mackinnon et al. (2007) developed a framework for examining mediation effects, which is useful for explaining how or why a relationship exists between two variables through a third variable (mediator). The authors also developed a four-step test for mediation. These requirements ensure that the mediator effectively explains the relationship between the independent variable (IV) and the dependent variable (DV). In this study, the independent variable is employee well-being (IV), the dependent variable is employee retention (DV), and the mediator is job satisfaction. The first step states that the independent variable (IV) must significantly affect the mediator. Gorgenyi-Hegyes et al. (2021) found that employee well-being has a positive influence on job satisfaction. Employees who improve their psychological well-being through work-life balance, mental health initiatives, and supportive leadership report higher levels of job satisfaction.

Secondly, the IV must significantly affect the dependent variable (DV) in the absence of the mediator. Priya & Kowsalyadevi (2024) discovered that employee well-being directly increases retention intentions among college lecturers, even when job satisfaction is not explicitly considered, indicating a strong direct relationship. Third, the mediator must have a significant and distinguishable effect on the DV. Job satisfaction improves retention independently. Zebua, Akmal & Zaitul (2022) revealed that job satisfaction independently contributes to employee retention by increasing engagement and decreasing turnover intentions. The final step requires the effect of the IV on the DV to diminish upon the addition of the mediator. Ibrahim, Ali & Zumrah (2019) found that job satisfaction partially mediates the relationship between employee well-being and retention, especially in the manufacturing industry. Their findings show that, while well-being has a direct effect, job satisfaction accounts for a significant portion of that effect, confirming its mediating role. The mediation approach aligns with Mackinnon et al. (2007), indicating that organisations seeking to improve retention should not only support well-being but also enhance job satisfaction through targeted initiatives.

3. Methodology

In this study, the quantitative approach is used to investigate the relationship between employee well-being and retention, using job satisfaction as a mediator, among Generation Z workers in Johor Bahru's manufacturing industry. The sample size was calculated using the G*Power method, and data analysis included descriptive statistics, Spearman correlation, and bootstrapping for non-normal distribution. Total of 146 sample questionnaire were analyzed. The study's major data collection tool is a survey-based questionnaire, enhanced by secondary sources such as journals and publications. The study instrument's reliability and validity were confirmed using Cronbach's Alpha and expert validation. A pilot study was done to evaluate the questionnaire's reliability, as well as the assumptions for mediator analysis, such as normality, multicollinearity, and observational independence.

3.1 Normality Test

A normality test determines whether the data is normally distributed or not. The findings from the Kolmogorov-Smirnov and Shapiro-Wilk tests are shown in Table 3.9. Since the significance value for the variables is less than 0.05 ($p < 0.05$), this indicates that the data is not normally distributed. The Shapiro-Wilk test should not be used when the sample size exceeds 50 respondents. In this study, employee retention, employee well-being (measured using the PERMA model), and job satisfaction had Kolmogorov-Smirnov test significance values below 0.05, confirming that the distribution is not normal. Thus, the Spearman Correlation test was used in this study.

3.2 Testing Multivariate Assumption for the Mediator Analysis

The first assumption for the mediator analysis is identifying outliers in the data. Outlier detection refers to the process of identifying fraud, novelty, and anomalies within a dataset. The purpose of outlier detection is to find uncommon or rare events that differ from the majority of data points. There were no outliers found in this study. The second assumption is that the data should be normally distributed for mediator analysis. According to the normality test analysis, it shows the data is not normally distributed, as the significance value for the variables is less than 0.05 ($p < 0.05$), according to the Kolmogorov-Smirnov test. Therefore, the bootstrapping method was used to analyse the Preacher and Hayes PROCESS macro.

When analysing non-normally distributed data in mediation analysis, the bootstrapping method is used. Traditional parametric approaches may produce biased estimates and inaccurate conclusions when data deviates from the assumption of normality. However, bootstrapping is a strong alternative that does not rely on these assumptions. This method is the process of continually taking samples from the data and replacing them to produce a large number of resamples. The indirect effect is calculated, and the mediation model is estimated for every resample. By generating an empirical distribution of the indirect effect, allowing for significance testing and confidence intervals without requiring normality assumptions (Coutts & Hayes, 2023). Coutts & Hayes (2023) also highlights the benefits of bootstrapping in his comprehensive guide on conditional process analysis, mediation, and moderation.

The third assumption is multicollinearity. To conduct mediator analysis, the independent variables should not exhibit multicollinearity. Multicollinearity detected when the Variance Inflation Factor (VIF) value is greater than 10 (James et al., 2013). As shown in Table 1, no multicollinearity was detected, as all VIF values are greater than 1.0, specifically ranging between 1.485 and 2.532. Based on the table, it can be concluded that multicollinearity is not present in this study.

Table 1 *Collinearity statistic*

Factors	VIF
IV1	1.485
IV2	1.792
IV3	2.532
IV4	2.391
IV5	1.766
MV	1.522

Furthermore, the final assumption is that the data should have independence of observations. This assumption is assessed using the Durbin Watson statistic for the variables. A value close to 2 indicates that no autocorrelation is present. Table 2 shows the Durbin Watson statistics, which is 1.882, a value close to 2. Therefore, no significant autocorrelation is detected in the residuals, suggesting that the assumption of independent residuals is likely satisfied. Moreover, the adjusted R-Squared value of 31.5% indicates that the model accounts for 31.5% of the variance in the dependent variable. This indicates a reasonable model fit, implying that the predictors contribute significantly to explaining the outcome variable.

Table 2 *Durbin Watson statistic*

Model	R	R Square	Adjusted R Square	St. Error of the Estimate	Durbin-Watson
1	.586	.343	.315	.45802	1.882

All multivariate assumptions have been tested prior to the mediator analysis. The results confirm that there are no outliers, no multicollinearity, and no significant autocorrelation, as indicated by the Durbin Watson statistic. Since the data is not a normal distribution, the mediator analysis was analysed using the bootstrapping method. Therefore, it is reliable to proceed with Preaches and Hayes' PROCESS macro analysis.

4. Data Analysis and Results

Findings obtained from the questionnaire responses collected from the respondents for this study. The data were analysed to address study's research questions and objectives. The analysis was conducted using Statistical Package Social Science (SPSS) version 25.0.

4.1 Response Rate

Data was collected using an online survey questionnaire created using Google Forms and distributed via social platform and email to Generation Z employees working in the manufacturing industry in Johor Bahru. A total of 160 questionnaire was distributed and 146 valid responses were obtained from employees in various manufacturing industries, resulting in a high response rate of 91.25%. The study's findings are more reliable and generalizable due to the high participation rate.

4.2 Demographic Analysis

The demographic information, including gender, age, race, education level, and working experience is analyzed in this part. The number and percentage of the respondents' gender which includes male and female. In terms of gender distribution, there were more male responses (51%) than females (49%). This implies a very equitable representation of gender. Further, when it comes to race, Malay respondents made up the largest group, accounting for 35% of the sample, followed by Indian and Chinese as same (31%). This demonstrates a wide racial mix among responders, with Malay comprising the largest group. Moreover, in terms of educational background, almost most of the respondents (51%) had a degree, while 38% had a diploma. Respondents with a master's degree accounted for 5% and PhD accounted 2%. Then, 4% reported having other qualifications, indicating a diverse range of educational backgrounds among the participants. Regarding the working experience in manufacturing industry, the majority of respondents (34%) had 1-2 years of experience, closely followed by those with 3-4 years (34%). Respondents with more than 5 years of experience accounting for 19%, while 13% had less than one year experience. This shows that most participants have some experience in the manufacturing industries.

4.3 Spearman Correlation Analysis

The Table 3 shows the findings of the Spearman Correlation Analysis of the PERMA model's aspects on employee retention. Each aspect has a substantial positive correlation with employee retention, as evidenced by p-values less than 0.01, showing that the study's hypotheses are accepted. Positive emotions have a moderate positive connection ($r_s = 0.413$), indicating that employees who have more positive emotions are more likely to stay with the company. Engagement has the strongest positive correlation ($r_s = 0.569$), indicating that highly engaged employees are more likely to stay with the company. This underlines the significance of increasing engagement in order to retain employees. Moreover, relationships also show a substantial positive correlation ($r_s = 0.408$), indicating that employees who have positive workplace relationships are significantly more likely to stay with the organization. Meaning has an almost positive correlation ($r_s = 0.398$), indicating that employees who sense purpose and meaning in their jobs are more likely to stay. Accomplishment has a strong positive connection ($r_s = 0.402$), indicating that employees who feel accomplished at work are significantly more likely to be retained. Overall, the results show that all aspects of the PERMA model are positively related to employee retention, with engagement and relationships having the greatest impact. This shows that creating an environment that promotes these characteristics will improve employee retention.

Table 3 *Spearman correlation between employee well-being and employee retention*

PERMA Elements	Correlation Coefficient (r_s)	p-value	Strength of Relationship
Positive emotions	0.413	<0.001	Moderate Positive
Engagement	0.569	<0.001	Strong Positive
Relationship	0.408	<0.001	Moderate Positive
Meaning	0.398	<0.001	Moderate Positive
Accomplishment	0.402	<0.001	Moderate Positive

Table 4 shows the findings of the Spearman Correlation Analysis, which studied the relationship between the PERMA model elements and job satisfaction. All five elements of well-being show statistically significant positive relationships with job satisfaction (p-values < 0.001). Positive emotions indicate a moderate beneficial correlation with job satisfaction ($r_s = 0.375$), implying that employees who regularly feel pleasant emotions are more satisfied with their jobs. Engagement has a strong a positive relationship ($r_s = 0.554$), showing that employees who are more emotionally and cognitively involved in their work report significantly higher job satisfaction. Similarly, relationships show a strong positive relationship ($r_s = 0.523$), emphasizing the importance of beneficial and a good workplace interaction in increasing job satisfaction. Meaning also has a moderate positive relationship ($r_s = 0.441$), showing that employees who find their work meaningful are more likely to be satisfied with their jobs. Accomplishment has a moderate positive relationship with job satisfaction ($r_s = 0.457$), meaning that employees who feel like they are making progress in their roles are more satisfied. Overall, the data indicate that each dimension of the PERMA model is important in promoting job satisfaction, with engagement and relationships having very high effects.

Table 4 *Spearman correlation between employee well-being and job satisfaction*

PERMA Elements	Correlation Coefficient (rs)	p-value	Strength of Relationship
Positive emotions	0.375	<0.001	Moderate Positive
Engagement	0.554	<0.001	Strong Positive
Relationship	0.523	<0.001	Strong Positive
Meaning	0.441	<0.001	Moderate Positive
Accomplishment	0.457	<0.001	Moderate Positive

Table 5 shows that the correlation coefficient is 0.575, with a p-value < 0.001. This correlation of 0.575 indicates a strong and positive relationship between employee retention and job satisfaction (r_s = 0.575, p < 0.01). This suggests that employees who are satisfied with their jobs are more likely to remain with their company. A recent study by Nor et al. (2024) confirms these findings, indicating that job satisfaction has a major influence on employee retention. According to the report, job stability, work-life balance, and opportunity for career advancement are important variables in employee happiness, especially among younger generations such as Generation Z. As a result, it is clear that job satisfaction is critical for retaining Generation Z employees.

Table 5 *Spearman correlation between employee retention and job satisfaction*

	Correlation Coefficient (rs)	p-value	Strength of Relationship
Job satisfaction	0.375	<0.001	Strong Positive

4.4 Preacher and Hayes (PROCESS Macro Method)

Given that all key assumptions had been met, the mediation analysis was conducted. The data was analyzed with the mediation analysis which is PROCESS macro (Model 4) by Andrew F. Hayes in SPSS. Table 6 shows mediation effect of job satisfaction on the relationship between employee well-Being (measured by the PERMA Model) and employee retention. The regression analysis showed that employee well-being was a significant predictor of job satisfaction (b =.83, t = 8.40, p <.001). While controlling for job satisfaction, the second regression analysis indicated that employee well-being is a significant predictor of employee retention (b =.46, t = 3.38, p <.001). The results of the indirect effect based on 5000 bootstrap samples indicated a significant positive relationship between employee well-being and employee retention mediated by job satisfaction (a*b = .30, Bootstrap CI95 = .11 and .50). The mediator, job satisfaction, accounted for approximately 39% of the total effect on employee retention (PM = (.30) / (.76)). Both the direct effect (b = .46, t = 3.38, p < .001) and the total effect (b = .76, t = 6.48, p < .001) of employee well-being on employee retention were statistically significant.

Table 6 *Mediation effect of job satisfaction on the relationship between employee well-being (Measured by the PERMA model) and employee retention*

Step	Pathway	b	SE	β	t	Adj. R^2	F (p)
1	Employee well-being → Job Satisfaction	0.83	0.10	0.57	8.40	0.33	70.50 (<0.001)
2	Employee well-being → Employee Retention	0.76	0.12	0.48	6.48	0.23	41.96 (<0.001)
3	Employee well-being → Employee Retention (Direct)	0.46	0.14	0.29	3.38	0.30	30.07 (<0.001)
	Job Satisfaction → Employee Retention	0.36	0.09	0.32	3.78		

Pathway	b	SE	t	p	95% CI (LL)	95% CI (UL)
Direct	0.46	0.14	3.38	<.001	0.19	0.73
Indirect	0.30	0.10			0.11	0.50
Total	0.76	0.12	6.48	<.001	0.53	0.99

In conclusion, the mediation analysis results show that job satisfaction plays a significant role in the relationship between employee well-being and employee retention among Generation Z employees in the manufacturing industries. There is a relationship between employee retention and employee well-being with the mediating effect of job satisfaction

5. Conclusion

The research objectives and research questions were successful in this study, as the all of the hypotheses were accepted. The study showed that the level of employee retention is medium level whereas employee well-being and job satisfaction was at high level. It indicates that a higher level of employee well-being correlates with higher levels of work satisfaction and retention. Furthermore, all five PERMA model theories of employee well-being had a strong and positive relationship with employee retention among Generation Z. This study also found that job satisfaction had a positive relationship to employee retention. Employee retention and well-being are mediated by job satisfaction. Based on the findings and limitations, future study should broaden the demographic and geographic reach to encompass a larger range of industries in the digital workplace, as well as diverse age groups and regions. This would allow for a more comprehensive analysis of how well-being and satisfaction affect retention across different workforce groups. Furthermore, researchers are encouraged to explore improved techniques of collecting accurate demographic data on Generation Z employees, particularly in industries such as manufacturing. Collaboration with human resource departments could improve access to trustworthy employment data while also increasing the accuracy and impacts of future studies.

Acknowledgement

Conflict of Interest

The authors declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

The authors confirm contribution to the paper as follows: **study conception and design:** *Sariveni Elangovan, Shazaitul Azreen Rodzalan; Noraini Sariyon;* **data collection:** *Sariveni Elangovan;* **analysis and interpretation of results:** *Sariveni Elangovan, Shazaitul Azreen Rodzalan;* **draft manuscript preparation:** *Sariveni Elangovan, Shazaitul Azreen Rodzalan; Noraini Sariyon. All authors reviewed the results and approved the final version of the manuscript.*

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