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THE IMPACT OF INTERNET ACCESS ON HAPPINESS IN INDONESIA

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Abstract

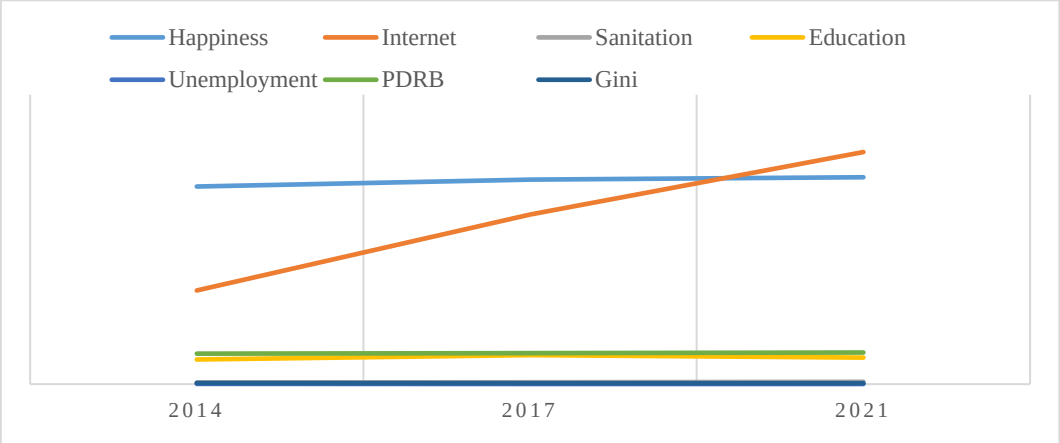
This study examines whether internet access increases happiness in Indonesia. Using provincial-level panel data from 2014, 2017, and 2021, a Random Effects model is applied to examine the relationship between internet access and the Happiness Index across 34 provinces. The analysis also includes education, Gini coefficient, unemployment, sanitation, and GDP per capita as additional factors. The findings show that internet access and education have a significant positive effect on happiness, while income inequality significantly reduces it. Although unemployment and sanitation were not statistically significant, they still contribute to the broader context of well-being. These results highlight the importance of expanding internet access and improving educational access as pathways to increasing happiness. The study also supports the Easterlin Paradox in Indonesia, indicating that higher income alone does not necessarily improve life satisfaction.

Keywords: *internet access; happiness; socio-economic factors; Indonesia; Random-Effects model*

INTRODUCTION

The rapid digitalization of Indonesia over the past few decades has led to substantial growth in internet access, influencing various socio-economic factors, including education, income distribution, and overall happiness (Rohayati & Abdillah, 2024). The chart highlights the trends in the Happiness and Internet Index from 2014 to 2021, alongside other socio-economic indicators such as sanitation, education, unemployment, PDRB (Gross Regional .Domestic Product), and Gini coefficient.

As illustrated in the Figure 1, there is a noticeable increase in both happiness and internet access over the years, with fluctuations in other factors such as unemployment and education. In 2014, internet access was significantly lower compared to 2021, which is in line with the rapid digital expansion seen in the country. Simultaneously, happiness levels, which often correlate with improved socio-economic conditions, have fluctuated, with higher scores in 2021 compared to 2014. The data suggests that internet access, along with improved socio-economic conditions, plays a role in boosting overall happiness, although other factors such as income inequality (represented by the Gini index) and unemployment remain critical determinants.



Source : BPS-Statistics Indonesia, Data processing

Figure 1. Happiness and Internet Index

In recent decades, the world has become increasingly interconnected through the rapid growth of digital technologies, with the internet playing a central role in reshaping global social, economic, and cultural landscapes (Al-Zoubi, 2024). The internet has emerged as an essential tool for disseminating information, expanding economic opportunities, and fostering social connections, ultimately improving the quality of life for individuals worldwide (Pellegrino & Abe, 2023). In Indonesia, the fourth most populous country and one of Southeast Asia's largest digital markets, the adoption of the internet is accelerating due to technological advancements and the expanding digital economy (Putri Radjamin & Hermawan, 2024). However, this growth has highlighted a significant challenge the digital divide with urban areas benefiting from widespread internet access while rural regions face infrastructural and digital literacy challenges (Shin et al., 2021).

The digital divide in Indonesia reflects broader issues of socio-economic disparity, where urban areas enjoy better internet access while rural areas struggle with inadequate infrastructure and limited digital literacy. These disparities hinder the equitable distribution of the internet's benefits, ultimately affecting social inclusion and well-being (Duanmu et al., 2025). As (Sharma & Singh, 2023) emphasize, improving digital infrastructure and literacy is critical for enhancing well-being, especially in underserved communities. This digital gap not only limits opportunities for education and employment but also exacerbates social inequalities, preventing many from fully participating in the opportunities offered by the digital economy.

The Happiness Index, a key measure of subjective well-being, reflects various dimensions of happiness, including economic factors, quality of life, health, social relationships, and living conditions (Sudirman, 2022). It is hypothesized that as internet access expands, it will lead to an increase in happiness through improvements in education, economic opportunities, and social connectivity. While internet access undoubtedly provides benefits in terms of enhancing information access, facilitating education, and fostering social networks, it also brings challenges, including social isolation, digital anxiety, and the exacerbation of the digital divide between urban and rural areas (Yan et al., 2023). These complexities underscore the intricate relationship between internet use and happiness, with both positive and negative impacts to consider.

The theory behind the relationship between internet access and happiness is informed by Social Well-Being Theory, which asserts that happiness is influenced not only by individual achievements but by access to social, educational, and economic opportunities (Steel et al., 2018). The internet facilitates greater access to these opportunities, leading to increased social inclusion and a higher sense of well-being. Conversely, Social Comparison Theory suggests that individuals evaluate their well-being in relation to others, and as income inequality grows, individuals experience relative deprivation, which can diminish happiness (Festinger, 1954). In countries like Indonesia, where significant disparities exist, these socio-economic factors exacerbate the digital divide’s impact on overall happiness.

Despite the growing body of research on internet access and happiness, the theoretical foundation for linking internet access to happiness indicators in the context of Indonesia remains underdeveloped. Grand theories such as Maslow's Hierarchy of Needs and Self-Determination Theory provide broad explanations of human motivation and well-being but do not specifically address the role of internet access in shaping happiness in the digital age (Ghaleb, 2024). Middle-range theories are essential to bridge the gap between these broad theories and empirical research. These theories focus on specific contexts, such as the relationship between digital access and happiness, and help refine how internet access can be measured in terms of its contribution to overall well-being.

The happiness indicators used in this study subjective well-being measures such as life satisfaction and emotional well-being serve as proxies for broader life quality dimensions. These indicators reflect not only individual happiness but also societal factors like education, income inequality, and unemployment. The study aims to examine how internet access influences these indicators and the broader socio-economic conditions that shape happiness. Income inequality is considered a key factor, as it affects relative social standing and often leads to diminished happiness, especially in regions with stark economic disparities (Sedeh & Caiazza, 2024). Education also plays a pivotal role, as greater access to educational opportunities leads to increased life satisfaction by improving individual prospects and social mobility (Chen et al., 2023).

This study aims to examine whether increased internet access contributes to higher happiness levels in Indonesia, particularly when supported by key economic and social factors such as education, income inequality, and unemployment. By focusing on internet access as a central element in the digital economy, this research seeks to understand how digital connectivity interacts with broader socio-economic conditions to influence the Happiness Index across provinces. The study also investigates whether the growth of internet access leads to sustainable improvements in well-being or merely reflects the Easterlin Paradox where rising material conditions do not necessarily result in increased happiness. Through this approach, the study provides meaningful insights for policies that support equitable digital expansion and inclusive economic development in Indonesia.

METHODS

The research variables are shown in Table 1. This study aims to analyze the impact of internet access on the Happiness Index (HPNS) across 34 provinces in Indonesia, considering other predictor variables such as GDP per capita, education, income inequality, and unemployment rate. The focus of this research is specifically on Indonesia, which presents a diverse socio-economic landscape with significant disparities between urban and rural regions, making it an ideal context for studying how internet access influences happiness.

Table 1. Research Variables

Variables	Description	Code
Happiness	Index of happiness by province over time	HPNS
Internet	Index of households that accessed the internet in the last 3 months by province, area classification	INT
Education	The education completion percentage rate by education level and province	EDUC
Gini Coefficient	Measured by gini coefficient (income inequality), with values closer to 1 indicating greater inequality by province	GINI
PDRB	The logarithmic transformation of gross regional domestic product per capita	LDPRB
Sanitation	The proportion of households with access to proper sanitation facilities	SNT
Unemployment	The percentage of the labor force unemployed by province	UNEM

Indonesia is classified by the World Bank as an upper-middle-income country, with an average Gross National Income (GNI) per capita falling between $4,125 and $12,736 (World Bank, 2020). The World Bank Atlas classifies countries based on their GNI per capita: low-income economies are those with a GNI per capita of $1,045 or less, lower-middle-income economies range from $1,045 to $4,125, upper-middle-income economies range from $4,125 to $12,736, and high-income economies have a GNI per capita of $12,736 or more (Fantom & Serajuddin, 2016). Indonesia, with its growing digital infrastructure, provides an interesting setting to study the impact of internet access on happiness, especially given the considerable gaps between provinces in terms of economic development and digital connectivity.

The dataset used in this study is panel data, which includes both cross-sectional and time-series data. The data spans from 2014 to 2021, offering a comprehensive view of changes in internet access and happiness over time across different provinces. Secondary data is used in this study, collected from reliable sources such as BPS (Badan Pusat Statistik) and the World Bank's World Development Indicators database. These sources provide open access to key socio-economic indicators, ensuring the transparency and credibility of the data used in this study.

In addition, the provinces are categorized based on socio-economic characteristics, with some being more urbanized and digitally connected, while others are more rural and face challenges in terms of internet access. This diversity allows for a more nuanced analysis of how internet access influences happiness across different socio-economic contexts within Indonesia.

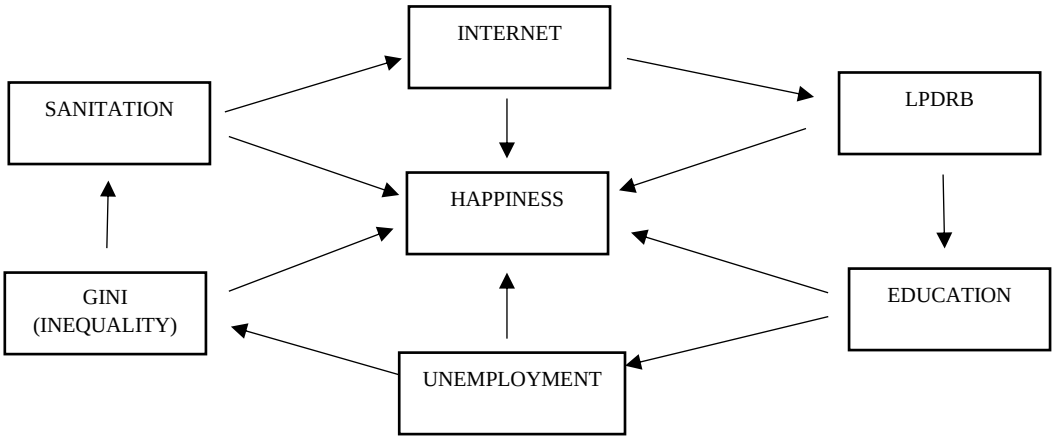


Figure 2. Relation Between Each Variables

Figure 2 illustrates the interconnected influence of internet access, education, income inequality, unemployment, sanitation, and regional income (PDRB) on happiness in Indonesia. Internet access directly increases happiness by improving access to information, economic opportunities, and social connectivity (Pénard et al., 2012). It also indirectly enhances happiness by promoting education and reducing inequality. Digital inclusion strengthens social capital, especially in underserved region and contributes to regional economic growth (Becha et al., 2025).

Education plays a dual role supporting individual well-being and regional development. Higher education increases employment opportunities and reduces poverty, thus enhancing life satisfaction (Mustafa & Lleshi, 2024). Income inequality, on the other hand, negatively affects happiness by limiting fairness and social cohesion. It is often linked to higher unemployment and weaker institutional trust (Rözer & Kraaykamp, 2013).

Although unemployment was not statistically significant in this model, its potential impact on financial security and mental health remains relevant. Sanitation, while less impactful, still contributes to happiness through improved health and basic living conditions. PDRB reflects economic well-being and supports happiness, but its effect may be offset by inequality. Notably, internet access also boosts PDRB, suggesting that digital infrastructure fosters inclusive economic development (Prasidya & Dewi, 2023).

In conclusion, happiness is influenced not only by individual socio-economic factors but also by how these factors interact (Behera et al., 2024). Internet access plays a central role by supporting improvements in education, reducing inequality, and encouraging economic development (Tian & Xiang, 2024). This study aims to explore how internet access, along with education, income inequality, and unemployment, affects happiness across Indonesian provinces. The main assumption is that better internet access creates more opportunities for learning and work, which can lead to higher life satisfaction. At the same time, inequality and unemployment are expected to reduce happiness. Understanding these relationships is important for designing effective policies to improve well-being more equally across regions.

To ensure the validity of the model, the Hausman Test is applied to determine whether the Fixed Effects Model (FE) or Random Effects Model (RE) is more appropriate for the data (Amini et al., 2012). The Hausman Test compares the estimators of both models to check if unobserved individual effects are correlated with the regressors. A non-significant p-value (greater than 0.05) supports the Random Effects Model (REM) (Liu & Lyhagen, 2010)

The Random Effects (RE) model was chosen because it effectively utilizes the cross-sectional and time-series dimensions of panel data, capturing variation within and between provinces. The Hausman Test confirms that RE is more appropriate than the Fixed Effects model, indicating that unobserved province specific effects are not correlated with the explanatory variables. This option maintains time invariant factors, preserves efficiency, and aligns with the study's goal of producing generalizable findings about the relationship between internet access and happiness across various socio-economic contexts.

$$Y_{it} = \beta_{10} + \sum_{k=1}^{p} \beta_{kit} X_{kit} + \varepsilon_{it} \quad \text{.....(1)}$$

Additionally, the study assesses heteroskedasticity using the Breusch-Pagan Test. Heteroskedasticity refers to the non-constant variance of residuals, which can lead to inefficient estimates if not addressed. The Breusch-Pagan Test statistic is calculated as follows:

$$F_{count} = \frac{(SSE_P - SSE_{DV})/(\mathrm{N}-1)}{(SSE_{DV})/(\mathrm{NT}-\mathrm{N}-\mathrm{K})} \quad \text{.....(2)}$$

A significant Breusch-Pagan test statistic indicates the presence of heteroskedasticity, requiring the use of robust standard errors to correct for this issue.

The econometric model is specified as follows:

$$HPNS_t = \beta_0 + \beta_1 LPDRB + \beta_2 INT + \beta_3 EDUC_t + \beta_4 GINI_t + \beta_5 UNEM_t + \beta_6 SNT_t + u_t \quad \text{.....(3)}$$

Where,

$HPNS_t$ = happiness index by province over time
$LPDRB_t$ = logarithm of gross regional domestic product (GDRP) per capita
INT_t = percentage of households that accessed the internet in the last 3 months by province, area classification
$EDUC_t$ = education completion rate by education level and province
$GINI_t$ = gini coefficient index (income inequality) by province
$UNEM_t$ = unemployment percentage rate by province
SNT_t = percentage of household by province with access to adequate sanitation
u_t = Error term

Table 2. Descriptive Statistics

Variable		Mean	Std.dev.	Min	Max	Observations
HPNS	overall	70.98	2.52	60.97	76.34	N = 101
	between		1.80	66.12	74.83	n = 34
	within		1.80	65.83	74.73	T-bar = 29
INT	overall	56.14	22.09	11.99	95.44	N = 101
	between		10.95	24.86	82.58	n = 34
	within		19.32	28.51	89.07	T-bar = 2.9
EDUC	overall	9.24	4.34	6.27	51.52	N = 101
	between		2.48	6.63	22.45	n = 34
	within		3.57	-5.63	38.31	T-bar = 2.9
GINI	overall	0.36	0.05	0.25	0.46	N = 101
	between		0.04	0.27	0.44	n = 34
	within		0.02	0.32	0.42	T-bar = 29
LPDRB	overall	10.73	0.58	9.52	12.52	N = 101
	between		0.57	9.73	12.31	n = 34
	within		0.18	10.30	11.24	T-bar = 29
SNT	overall	0.68	0.17	0.16	0.97	N = 101
	between		0.13	0.32	0.91	n = 34
	within		0.11	0.39	0.96	T-bar = 29
UNEM	overall	0.52	0.19	0.01	0.10	N = 101
	between		0.18	0.02	0.90	n = 34
	within		0.01	0.03	0.08	T-bar = 29

Source : Processed on STATA 17

Table 2 outlines the key research variables used in this study. The analysis aims to explore the relationship between internet access and happiness across Indonesia's 34 provinces. The dependent variable is HPNS, which represents a comprehensive measure of provincial well-being, incorporating economic, social, and health factors. The independent variables include INT, GDP per capita, GINI, UNEM, EDUC, and SNT.

Predictor variables were selected based on theoretical relevance and empirical evidence from previous studies linking socioeconomic conditions to happiness. These variables include education, income inequality, GDP per capita, unemployment, and sanitation, which collectively represent the main channels thru which internet access can influence well-being. All variables are sourced from standardized national and international datasets (BPS and the World Bank) to ensure consistency of measurement, internal validity, and comparability across provinces and years. The participation of all 34 provinces with diverse economic, social, and geographical profiles strengthens external validity and improves the generalizability of the findings.

RESULTS

This study utilized the Random Effects model to analyze panel data from 34 Indonesian provinces over the years 2014, 2017, and 2021. The Random Effects model was selected based on the Hausman and Chow tests, which assess model suitability in panel data analysis (Table 3). The Hausman test (p-value = 0.652) revealed that the Random Effects model was more appropriate than the Fixed Effects model, as it assumes that the country-specific effects are uncorrelated with the explanatory variables. This aligns with the theory proposed by Hausman and Taylor (1981), which suggests that Random Effects is preferred when unobserved heterogeneity is not correlated with explanatory variables. The Chow test (p-value = 0.000) also confirmed the superiority of the Random Effects model over the Ordinary Least Squares (OLS) model, as it effectively captures both within-province and between-province variations, reflecting the mixed cross-sectional and time-series nature of the data (Baltagi, 2021).

Table 3. Model Selection

Methods	Testing	Probability	α
Random Effects vs OLS	Chow Test	0.000	0.050
Random Effects vs Fixed Effects	Hausman Test	0.652	0.050

Source : Processed on STATA 17

Table 4. Variance Inflation Factor

	VIF	1/VIF
INT	3.444	.290
SNT	3.019	.331
LPDRB	1.491	.671
UNEM	1.163	.860
GINI	1.097	.912
EDUC	1.023	.977
Mean VIF	1.873	.

Source : Processed on STATA 17

The validity of the regression model was further ensured by diagnostic tests. The Variance Inflation Factor (VIF) results indicated that multicollinearity was not an issue, as all VIF values were below the threshold of 10, with a mean VIF of 1.873 (Table 4). This suggests that the independent variables in the model are not highly correlated, adhering to the assumptions of linear regression (Shrestha, 2020).

Table 5. Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1)LPDRB	1.000					
(2) INT	0.527	1.000				
	(0.000)					
(3) EDUC	0.064	0.127	1.000			
	(0.522)	(0.207)				
(4) GINI	-0.036	-0.196	-0.015	1.000		
	(0.723)	(0.050)	(0.879)			
(5) UNEM	0.352	0.276	0.066	-0.049	1.000	
	(0.000)	(0.005)	(0.511)	(0.624)		
(6) SNT	0.452	0.805	0.147	-0.033	0.265	1.000
	(0.000)	(0.000)	(0.143)	(0.746)	(0.007)	

Source : Processed on STATA 17

The correlation matrix confirmed moderate relationships between the variables, with the correlation between LPDRB and INT at 0.527, indicating that each variable contributes unique information to the model, supporting the idea that multi-dimensional factors collectively influence regional happiness (Mochón, 2018). This finding aligns with the Social Well-Being Theory, which posits that various socio-economic factors, including income and education, contribute to individuals' overall well-being (Table 5).

Table 6. Heteroskedasticity Test

Group	Probability	α
ASEAN (6 Countries)	0.8052	0.05

Source : Processed on STATA 17

The Heteroskedasticity Test showed a p-value of 0.8052, indicating that the null hypothesis of homoskedasticity cannot be rejected (Table 6). This confirms that the error variance is consistent across provinces and time periods. As a result, the Random Effects model is valid, ensuring unbiased and efficient estimates for the study on the impact of internet access, education, and income inequality on happiness.

Table 7. Random Effects Regression Results

HPNS	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
LPDRB	.355	.542	0.650	.513	-.708	1.418	
INT	.052	.015	3.500	0.000	.023	.0820	***
EDUC	.019	.007	2.860	.004	.006	.0330	***
GINI	-14.517	6.881	-2.110	.035	-28.005	-1.030	**
UNEM	-13.8	10.708	-1.290	.197	-34.787	7.187	
SNT	2.352	2.023	1.160	.245	-1.613	6.317	
Constant	68.439	6.426	10.650	0.000	55.843	81.035	***

Mean dependent var	70.980	SD dependent var	2.523
Overall r-squared	0.487	Number of obs	101
Chi-square	181.613	Prob > chi2	0.000
R-squared within	0.697	R-squared between	0.293

**** p<.01, ** p<.05, * p<.1*

Source : Processed on STATA 17

Finally, the Random Effects regression analysis, using robust standard errors to address heteroskedasticity, confirmed that internet access and education have a statistically significant positive effect on happiness, while income inequality has a significant negative effect. The coefficient for internet access was 0.052 ($p < 0.01$), reflecting its positive contribution to happiness, aligning with the work of (Tavares et al., 2022), who suggested that internet access fosters social participation, education, and economic opportunities key determinants of happiness. Similarly, education showed a positive effect (coefficient = 0.019, $p = 0.004$), consistent with Social Well-Being Theory, which emphasizes that education enhances personal development and life satisfaction (Das et al., 2020). Income inequality, on the other hand, exhibited a negative effect (coefficient = -14.517, $p = 0.035$), highlighting that regions with higher income disparities experience lower happiness levels, in line with the Social Comparison Theory (Festinger, 1954), which asserts that relative income disparities negatively impact well-being (Table 7).

DISCUSSION

The variable Internet Access was found to have a positive and statistically significant impact on happiness, with a coefficient of 0.052 and p-value < 0.01. This result confirms the initial hypothesis that internet access plays an important role in enhancing well-being by providing access to information, public services, and digital inclusion. This finding is in line with (Sun et al., 2023), who found that internet penetration had a substantial effect on happiness by improving access to education and healthcare services. In the Indonesian context, (Rusyda & Siagian, 2023) found that digital infrastructure facilitated greater community participation and improved life satisfaction. Similarly, (Kitazawa et al., 2019) demonstrated that internet use among students enhanced social interaction and mental well-being. These findings support the argument that internet access is a key enabler of modern social and economic participation.

The Education variable also had a positive and significant effect on happiness, with a coefficient of 0.019 and a p-value of 0.004. This supports the hypothesis that higher educational attainment improves individual well-being through better employment prospects and increased social capital. This result aligns with (Mei & Lin, 2023), who explained that education mediates the relationship between internet use and happiness, especially in rural areas. (Alves et al., 2025) further confirmed that higher education is associated with better life satisfaction, particularly when combined with digital access and vocational training. These findings highlight education's role not only as a means of economic mobility but also as a critical component of life satisfaction in the digital era.

Income Inequality was found to have a negative and statistically significant effect on happiness, with a coefficient of -14.517 and a p-value of 0.035. This supports the hypothesis that inequality negatively influences subjective well-being. The result is in line with the Social Comparison Theory (Festinger, 1954), which posits that individuals evaluate their happiness relative to others, leading to

dissatisfaction in unequal societies. (Gao et al., 2022) similarly found that inequality contributes to psychological distress and lower life satisfaction. In Indonesia, (Uddin, 2025) observed that higher income inequality was associated with reduced trust and lower happiness, particularly among the youth. These findings underline the importance of inclusive growth and equitable distribution of resources in improving happiness outcomes.

On the other hand, Unemployment did not have a statistically significant effect on happiness, with a coefficient of -13.800 and a p-value of 0.197. Although conventional theory suggests that joblessness reduces life satisfaction, the result here indicates that its impact may be context-dependent. In Indonesia, informal employment and strong social networks may reduce the direct impact of unemployment on happiness. (Pramana Desanta & Aisyah, 2025) argued that informal job alternatives and family support often cushion the effects of job loss. (Aliyev, 2021) also noted that unemployment's effect on well-being may be moderated by individual factors such as education and social capital. These findings suggest that while unemployment remains a socio-economic concern, its influence on happiness may be mitigated in contexts where informal systems are prevalent.

Similarly, regional GDP per capita did not significantly affect happiness, with a coefficient of 0.355 and a p-value of 0.513. This finding contradicts the assumption that higher economic output directly enhances well-being. It supports the Easterlin Paradox, which argues that beyond a certain threshold, increases in income have diminishing effects on happines. (Easterlin & O'Connor, 2022). (Boyce et al., 2010) emphasized that income levels are less important than income security, fairness, and social cohesion in determining happiness. In Indonesia, economic growth may be concentrated among certain groups, limiting its broader effects on well-being (Verico & Pangestu, 2021). Thus, GDP per capita remains an important economic indicator, but appears to be a weaker predictor of happiness when compared to more inclusive variables like internet access and education.

Finally, Sanitation had a positive but statistically insignificant effect on happiness, with a coefficient of 2.352 and a p-value of 0.245. While sanitation is essential for public health and dignity, its contribution to subjective well-being may be less direct in areas where basic needs are already met. (Pramana Desanta & Aisyah, 2025) stated that sanitation supports well-being through privacy and safety, but its effect may be more visible in underserved region. (Magwe, 2025) found that improved sanitation was associated with higher well-being in rural areas with poor infrastructure, though the effect was less pronounced where digital and educational access were already advanced. Hence, sanitation remains important but may play a secondary role compared to digital and human capital development.

The insignificant effects of unemployment and sanitation could also reflect measurement limitations or the influence of unobserved mediating variables, such as regional policy interventions or cultural attitudes toward work and health infrastructure. From a policy perspective, expanding digital infrastructure and improving educational attainment may be more effective in enhancing happiness than focusing solely on GDP growth. Theoretically, these results reinforce the multidimensional nature of well-being, supporting frameworks that emphasize social capital and equality alongside economic measures.

While this study provides valuable insights, several limitations should be noted. First, the analysis relies on secondary data, which may not capture unobserved factors affecting happiness, such as cultural differences or subjective perceptions. Second, the time coverage is limited to three points (2014, 2017, and 2021), which may miss short-term fluctuations. Finally, causality cannot be fully established, as the analysis is based on observational rather than experimental data.

CONCLUSIONS

Internet access was found to significantly increase happiness. This means that as more people gain access to the internet, they can benefit from better education, job opportunities, and social connections, leading to a higher quality of life. To help improve happiness across Indonesia, the government should invest in expanding internet infrastructure, particularly in rural and underserved

areas, where access is still limited. Public-private partnerships could help attract the necessary investments for this.

Education also played a major role in increasing happiness. The study showed that higher levels of education improve people's job prospects and overall well-being. Therefore, the government should focus on improving access to education, especially in remote areas. This could include programs to enhance vocational training, digital literacy, and offering scholarships to help more people get the education they need to succeed.

Income inequality, on the other hand, was found to have a negative effect on happiness. The study showed that when income disparities are high, people are less happy because they feel left behind. To address this, the government should introduce policies that reduce income inequality, such as progressive taxation and social welfare programs. These policies would help ensure that wealth is more evenly distributed, improving the happiness of people in lower-income regions.

Although unemployment did not show a direct impact on happiness in this study, it is still an important issue. The government should focus on creating more job opportunities, particularly in industries that can provide work for a large number of people. Promoting training programs and ensuring that wages are above the poverty line can help reduce the negative effects of unemployment.

Sanitation, while important for public health, had a smaller effect on happiness in this study compared to internet access and education. The government should continue to improve access to clean water and sanitation, especially in rural areas. However, the impact of sanitation on happiness will become less significant as access to the internet and education improves. Integrated policies that address sanitation alongside digital and educational development will have the greatest overall impact on well-being.

In summary, this study highlights the importance of internet access and education in improving happiness. Income inequality remains a major barrier, and policies that reduce inequality can help increase overall happiness. While unemployment and sanitation also matter, their effects on happiness are more complex and require careful consideration. By focusing on expanding digital access, improving education, and addressing income inequality, Indonesia can create a more prosperous and happier society for all its citizens.

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