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“Digital Transformation and Sustainable Business: Challenges and Opportunities for Higher Education Research and Development”

Institutional Quality as a Buffer Against Economic Instability: Examining the Determinants of National Well-Being Across Development Contexts

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Abstract

What factors determine why citizens in some nations report greater life satisfaction than others? This investigation probes the intricate nexus between macroeconomic turbulence, joblessness, integrity in public administration, and civic freedoms as predictors of collective happiness. Leveraging longitudinal observations spanning 156 nations from 2008 through 2023, the analysis deploys panel regression frameworks complemented by generalized method of moments estimation to disentangle causal pathways. The empirical evidence demonstrates that economic uncertainty exerts a pronounced negative influence on reported well-being; crucially, however, this adverse relationship weakens considerably where governmental apparatus functions effectively. Beyond economic considerations, the findings illuminate that both anti-corruption initiatives and protections for open discourse independently elevate national happiness scores. A particularly striking pattern emerges from disaggregated analysis: economies in earlier developmental stages suffer more acutely from macroeconomic disturbances yet paradoxically stand to gain disproportionately from governance reforms. The interaction coefficient between volatility measures and institutional effectiveness indicators provides compelling support for the hypothesis that capable public institutions serve as shock absorbers during periods of economic stress. These discoveries advocate for integrated policy architectures that concurrently pursue fiscal stability and institutional fortification, with special attention directed toward safeguarding populations most exposed to economic vicissitudes through expanded social protection mechanisms.

Keywords: *Life Satisfaction, Economic Uncertainty, Joblessness, Public Sector Integrity, Civic Freedoms, Cross-National Analysis*

Introduction

The pursuit of happiness has been a fundamental human aspiration throughout history, and in recent decades, it has emerged as a critical policy objective for governments worldwide. The growing recognition that traditional economic indicators such as GDP fail to capture the multidimensional nature of human well-being has led to an increased focus on subjective measures of happiness and life satisfaction. This paradigm shift has prompted researchers and policymakers alike to explore the complex determinants of national happiness, moving beyond purely economic considerations to encompass institutional, social, and political factors.

Economic volatility represents one of the most significant challenges facing both developed and developing nations in the contemporary global economy. The 2008 financial crisis and its aftermath demonstrated the profound psychological and social consequences of economic instability, affecting not only material well-being but also mental health, social cohesion, and overall life satisfaction. Similarly, unemployment remains a persistent concern with well-documented negative effects on individual and societal happiness, extending far beyond the immediate loss of income to encompass identity, social status, and psychological well-being.

The quality of governance institutions has increasingly been recognized as a crucial determinant of national happiness. Control of corruption, in particular, affects happiness through multiple channels: it influences the efficiency of public service delivery, shapes perceptions of fairness and justice, and determines the extent to which citizens trust their governments. Likewise, freedom of expression constitutes a fundamental human right that contributes to well-being by enabling individuals to participate meaningfully in civic life, express their identities, and hold governments accountable.



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Despite the growing body of literature on the determinants of happiness, several gaps remain in our understanding of how these factors interact and vary across different institutional contexts. Most existing studies have focused on individual-level determinants or examined macroeconomic factors in isolation, overlooking the potential moderating role of institutional quality. Furthermore, the differential impacts of these factors in developed versus developing countries have received insufficient attention, limiting the generalizability of policy recommendations.

This study addresses these gaps by conducting a comprehensive worldwide panel analysis of the relationships between economic volatility, unemployment, control of corruption, freedom of expression, and national happiness. Using panel data from 2008 to 2023, we employ advanced econometric techniques to examine both direct effects and interaction effects, with particular attention to the moderating role of government effectiveness. Our analysis encompasses both developed and developing countries, allowing for a nuanced understanding of how these relationships vary across different levels of economic development.

The contributions of this study are threefold. First, we provide updated empirical evidence on the determinants of national happiness using a comprehensive dataset spanning the post-financial crisis period. Second, we explicitly examine the interaction between economic volatility and institutional quality, offering insights into the protective role of good governance. Third, we compare the effects across developed and developing countries, providing context-specific policy implications. The findings have important implications for policymakers seeking to enhance citizen well-being through targeted interventions addressing both economic stability and institutional quality.

Literature Review

Theoretical Framework

The theoretical foundations of happiness research draw from multiple disciplines, including economics, psychology, and sociology. The subjective well-being framework, developed primarily within psychology, conceptualizes happiness as comprising both cognitive evaluations of life satisfaction and affective experiences of positive and negative emotions. This multidimensional understanding has been increasingly adopted in economics, where it complements traditional utility-based approaches that equate well-being with preference satisfaction.

Easterlin's seminal work on the relationship between income and happiness established the foundation for economic happiness research. The Easterlin Paradox, which suggests that beyond a certain threshold, increases in national income do not translate into corresponding increases in happiness, directed scholarly attention toward non-economic determinants of well-being. Subsequent research has identified numerous factors that influence happiness independently of income, including social relationships, health, employment status, and institutional quality.

Institutional economics provides a complementary theoretical perspective by emphasizing the role of formal and informal rules in shaping economic and social outcomes. According to this view, institutions affect happiness both directly, through their influence on individual freedoms and opportunities, and indirectly, through their effects on economic performance and social trust. Good governance, characterized by low corruption, rule of law, and protection of civil liberties, creates an environment conducive to human flourishing.

Economic Volatility and Happiness

Economic volatility refers to fluctuations in key macroeconomic indicators such as GDP growth, inflation, and exchange rates. The literature consistently documents negative effects of volatility on subjective well-being. Theoretical explanations for this relationship emphasize several mechanisms. First, volatility creates uncertainty about future income and consumption, generating anxiety and reducing current life satisfaction. Second, economic instability often leads to increased unemployment and income losses, with direct negative effects on



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well-being. Third, volatility may undermine social trust and cohesion, weakening the social foundations of happiness.

Empirical studies have largely confirmed the negative relationship between economic volatility and happiness. Cross-country analyses have found that nations with more stable macroeconomic environments report higher levels of life satisfaction, even after controlling for income levels. Time-series studies have demonstrated that periods of economic turbulence are associated with declines in happiness indicators. However, some research suggests that the relationship may be moderated by institutional factors, with stronger institutions potentially buffering the negative effects of volatility.

Unemployment and Happiness

The negative relationship between unemployment and happiness is one of the most robust findings in the well-being literature. At the individual level, unemployment is associated with substantial reductions in life satisfaction that persist even after controlling for income loss. The non-pecuniary costs of unemployment include loss of identity and purpose, reduced social interactions, psychological distress, and diminished self-esteem. These effects tend to persist over time, with some evidence suggesting long-term scarring effects on well-being.

At the aggregate level, national unemployment rates have been found to negatively affect the happiness of both unemployed and employed individuals. The latter effect, often termed the social norm or stigma effect, reflects the anxiety and insecurity that high unemployment generates even among those who retain their jobs. Some studies have also identified adaptation effects, whereby individuals in countries with persistently high unemployment report less severe well-being penalties, though the evidence for such adaptation remains contested.

Corruption and Happiness

Corruption affects happiness through multiple channels. At the individual level, exposure to corrupt practices reduces trust in institutions and perceptions of fairness, both of which are associated with lower life satisfaction. Corruption also imposes direct costs on citizens through bribery demands and reduces the quality of public services. At the macro level, corruption distorts resource allocation, reduces economic growth, and increases inequality, all of which have negative implications for national happiness.

Empirical research has consistently found negative associations between corruption and happiness. Cross-country studies show that nations with lower levels of corruption report higher average life satisfaction, even after controlling for income and other relevant factors. Some research suggests that the happiness costs of corruption may be particularly severe in developing countries, where institutional alternatives to corrupt practices are less available. Conversely, effective control of corruption has been associated with enhanced trust, improved public services, and higher subjective well-being.

Freedom of Expression and Happiness

Freedom of expression constitutes a fundamental human right with intrinsic value for individual well-being. Beyond its intrinsic importance, freedom of expression contributes to happiness through several instrumental mechanisms. It enables individuals to participate meaningfully in civic and political life, fostering a sense of agency and empowerment. It facilitates the free flow of information necessary for informed decision-making. It supports artistic and creative expression, contributing to cultural flourishing. And it provides a mechanism for holding governments accountable, thereby improving governance outcomes.

The empirical literature on freedom of expression and happiness, while less extensive than research on economic factors, generally supports a positive relationship. Studies have found that measures of press freedom and civil liberties are positively associated with national happiness levels. Some research suggests that the effects of



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political freedoms on happiness may be conditional on other factors, including cultural values and the extent of democratization. However, the direction of causality remains debated, as happier societies may also be more likely to protect civil liberties.

Hypotheses Development

Based on the theoretical framework and empirical literature reviewed above, we develop the following hypotheses. First, we hypothesize that economic volatility is negatively associated with national happiness (H1). Second, we expect unemployment to have a negative effect on happiness (H2). Third, we hypothesize that control of corruption is positively associated with happiness (H3). Fourth, we expect freedom of expression to have a positive effect on happiness (H4). Finally, we hypothesize that the negative effect of economic volatility on happiness is moderated by government effectiveness, with countries having higher government effectiveness experiencing smaller negative impacts (H5).

Methods

Data and Sample

This study utilizes panel data from multiple international sources covering the period 2008 to 2023. The sample comprises 156 countries, including both developed and developing economies. The primary dependent variable, national happiness, is measured using the Life Ladder scores from the World Happiness Report, which are based on the Cantril Self-Anchoring Scale asking respondents to evaluate their current life on a scale from 0 (worst possible life) to 10 (best possible life).

Economic volatility is measured as the five-year rolling standard deviation of GDP growth rates, calculated using World Bank World Development Indicators data. Unemployment rates are obtained from the International Labour Organization (ILO) database. Control of corruption and government effectiveness are measured using the corresponding indicators from the Worldwide Governance Indicators (WGI) project. Freedom of expression is measured using the Voice and Accountability indicator from WGI, supplemented by the Press Freedom Index from Reporters Without Borders.

Control variables include GDP per capita (in purchasing power parity terms), social support, healthy life expectancy, freedom to make life choices, and generosity, all obtained from the World Happiness Report database. We also control for population size, urban population share, and regional fixed effects to account for unobserved heterogeneity.

Table 1. Variable Definitions and Data Sources

Variable	Definition	Source
Happiness	Life Ladder score (0-10 scale)	World Happiness Report
Volatility	5-year rolling SD of GDP growth	World Bank WDI
Unemployment	Unemployment rate (%)	ILO Database
Corruption Control	Control of Corruption index (-2.5 to 2.5)	WGI
Freedom of Expression	Voice and Accountability index (-2.5 to 2.5)	WGI
Gov. Effectiveness	Government Effectiveness index (-2.5 to 2.5)	WGI
GDP per capita	Log of GDP per capita (PPP, constant 2017\$)	World Bank WDI



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Social Support	National average of binary responses	World Happiness Report
Life Expectancy	Healthy life expectancy at birth (years)	WHO

Notes: *WDI* = World Development Indicators; *WGI* = Worldwide Governance Indicators; *ILO* = International Labour Organization; *WHO* = World Health Organization.

Econometric Approach

Given the panel structure of our data, we employ several econometric approaches to ensure robustness of our findings. The baseline model is a fixed effects panel regression that controls for time-invariant country-specific heterogeneity. The model specification is as follows:

$$\text{Happiness}_{it} = \alpha_i + \beta_1 \text{Volatility}_{it} + \beta_2 \text{Unemployment}_{it} + \beta_3 \text{Corruption}_{it} + \beta_4 \text{Freedom}_{it} + \gamma X_{it} + \lambda_t + \varepsilon_{it}$$

where Happiness_{it} is the Life Ladder score for country i in year t , α_i represents country fixed effects, λ_t represents year fixed effects, X_{it} is a vector of control variables, and ε_{it} is the error term. To examine the moderating role of government effectiveness, we extend the model to include interaction terms between economic volatility and government effectiveness.

We address potential endogeneity concerns through several approaches. First, we use lagged values of independent variables to mitigate reverse causality. Second, we employ system GMM estimation as a robustness check, which addresses both endogeneity and measurement error concerns. Third, we conduct instrumental variable analysis using historical institutional variables as instruments for current governance indicators.

To examine heterogeneity across development levels, we split the sample into developed and developing countries based on World Bank income classifications. We also conduct quantile regression analysis to assess whether the effects of our key variables differ across the happiness distribution.

Robustness Checks

Several robustness checks are conducted to validate our main findings. First, we use alternative measures of key variables, including different volatility measures (GARCH-based volatility, coefficient of variation) and alternative happiness indicators (positive affect, negative affect). Second, we conduct subsample analyses by geographic region and time period. Third, we employ different estimation techniques including random effects models, Hausman-Taylor estimators, and dynamic panel models. Fourth, we address potential measurement error in governance indicators through latent variable approaches.

Results and Discussion

Descriptive Statistics

Table 2 presents descriptive statistics for all variables included in the analysis. The mean happiness score across the sample is 5.42, with considerable variation ranging from 2.69 to 7.97. Economic volatility shows substantial cross-country variation, with a mean of 2.84 percentage points and a maximum of 15.67 percentage points. The governance indicators display the full range of possible values, reflecting the diversity of institutional quality across the sample.

Table 2. Descriptive Statistics

Variable	Mean	SD	Min	Max	N
Happiness	5.42	1.12	2.69	7.97	2,184



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Economic Volatility	2.84	2.31	0.42	15.67	2,184
Unemployment (%)	7.28	5.64	0.31	33.47	2,184
Corruption Control	-0.02	1.01	-1.87	2.47	2,184
Freedom of Expression	-0.04	0.98	-2.26	1.74	2,184
Government Effectiveness	0.01	0.99	-2.48	2.34	2,184
Log GDP per capita	9.24	1.18	6.42	11.68	2,184
Social Support	0.81	0.12	0.29	0.99	2,184
Life Expectancy	63.47	7.24	41.28	76.95	2,184

Notes: Panel data for 156 countries, 2008-2023. Governance indicators range from -2.5 to 2.5.

Main Results

Table 3 presents the main regression results. Column 1 shows the baseline fixed effects model with only the key independent variables. Economic volatility exhibits a significant negative effect on happiness ($\beta = -0.089$, $p < 0.01$), supporting Hypothesis 1. A one standard deviation increase in volatility is associated with a 0.21-point decrease in the happiness score, representing approximately 19% of one standard deviation in happiness.

Unemployment also shows a significant negative effect on happiness ($\beta = -0.024$, $p < 0.01$), consistent with Hypothesis 2. The magnitude suggests that each percentage point increase in unemployment reduces happiness by 0.024 points. Control of corruption is positively associated with happiness ($\beta = 0.347$, $p < 0.01$), supporting Hypothesis 3. This effect is economically substantial: a one standard deviation improvement in corruption control is associated with a 0.35-point increase in happiness.

Freedom of expression shows a positive and significant effect ($\beta = 0.218$, $p < 0.01$), supporting Hypothesis 4. Column 2 adds control variables, which slightly attenuate the coefficients but do not change the qualitative conclusions. Column 3 introduces the interaction between volatility and government effectiveness. The negative main effect of volatility remains significant, while the interaction term is positive and significant ($\beta = 0.032$, $p < 0.05$), supporting Hypothesis 5. This indicates that countries with higher government effectiveness experience smaller negative effects of volatility on happiness.

Table 3. Main Regression Results: Determinants of Happiness

Variables	(1)	(2)	(3)	(4)
Economic Volatility	-0.089*** (0.018)	-0.076*** (0.016)	-0.082*** (0.017)	-0.071*** (0.015)
Unemployment	-0.024*** (0.005)	-0.019*** (0.004)	-0.018*** (0.004)	-0.016*** (0.004)
Corruption Control	0.347*** (0.062)	0.284*** (0.058)	0.276*** (0.057)	0.251*** (0.054)
Freedom of Expression	0.218*** (0.048)	0.187*** (0.045)	0.179*** (0.044)	0.164*** (0.042)



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Volatility × Gov. Effectiveness			0.032** (0.012)	0.028** (0.011)
Log GDP per capita		0.412*** (0.087)	0.398*** (0.085)	0.387*** (0.082)
Social Support		1.847*** (0.312)	1.823*** (0.308)	1.756*** (0.294)
Country FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	2,184	2,184	2,184	2,184
R-squared (within)	0.324	0.487	0.493	0.512
Countries	156	156	156	156

Notes: Standard errors clustered by country in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Column (4) includes additional controls for life expectancy and freedom to make life choices.

Subsample Analysis: Developed vs. Developing Countries

Table 4 present results from subsample analyses comparing developed and developing countries. Several notable differences emerge. The negative effect of economic volatility is larger in developing countries ($\beta = -0.108$) compared to developed countries ($\beta = -0.054$), suggesting that citizens in less developed economies are more vulnerable to macroeconomic instability. Conversely, the positive effect of corruption control is stronger in developed countries ($\beta = 0.312$) than in developing countries ($\beta = 0.198$), possibly reflecting higher expectations for governance quality in more developed contexts.

The moderating effect of government effectiveness on the volatility-happiness relationship is significant only in developing countries, indicating that institutional quality plays a particularly important protective role in these contexts. Freedom of expression shows positive effects in both subsamples, though the coefficient is larger in developed countries. These findings underscore the importance of context-specific policy approaches.

Table 4. Subsample Analysis: Developed vs. Developing Countries

Variables	Developed	Developing	Diff.
Economic Volatility	-0.054** (0.021)	-0.108*** (0.024)	**
Unemployment	-0.021*** (0.006)	-0.016*** (0.005)	
Corruption Control	0.312*** (0.078)	0.198*** (0.064)	*
Freedom of Expression	0.224*** (0.056)	0.156*** (0.052)	



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Volatility × Gov. Effectiveness	0.018	0.041**	*
	(0.015)	(0.016)	
Observations	728	1,456	
R-squared (within)	0.534	0.462	
Countries	52	104	

*Notes: All models include country and year fixed effects and full set of controls. Standard errors clustered by country. *** p<0.01, ** p<0.05, * p<0.1. Diff. column indicates significance of coefficient difference across subsamples.*

Robustness Checks

The main findings are robust to a variety of alternative specifications and estimation techniques. System GMM estimation confirms the baseline results, with coefficients of similar magnitude and significance. Instrumental variable analysis using historical institutional variables as instruments for current governance indicators yields consistent findings. The Hansen J-test and Arellano-Bond tests support the validity of our instruments and the absence of serial correlation in the error terms.

Alternative measures of key variables produce qualitatively similar results. Using GARCH-based volatility instead of rolling standard deviation yields a coefficient of -0.072 (p < 0.01) for economic volatility. Replacing the Life Ladder score with positive affect produces consistent patterns, though with smaller magnitudes as expected given the narrower scope of this measure. Regional subsample analyses confirm that the main findings hold across different geographic contexts, though some variation in coefficient magnitudes is observed.

Discussion

This study provides comprehensive evidence on the determinants of national happiness, with particular attention to the roles of economic volatility, unemployment, corruption control, and freedom of expression. The findings confirm the importance of both economic stability and institutional quality for promoting citizen well-being, while highlighting the complex interactions between these factors across different development contexts.

The negative effect of economic volatility on happiness underscores the importance of macroeconomic stability for citizen well-being. This finding aligns with prospect theory predictions that losses loom larger than gains, suggesting that the uncertainty and potential losses associated with volatility have disproportionate negative effects on subjective well-being. The finding that government effectiveness moderates this relationship indicates that strong institutions can partially buffer citizens from the adverse effects of economic instability, perhaps by providing more reliable social safety nets and maintaining public trust during turbulent periods.

The differential effects observed between developed and developing countries have important implications for policy design. The larger negative impact of volatility in developing countries suggests that citizens in these contexts may be more vulnerable due to weaker formal and informal insurance mechanisms. Conversely, the stronger moderating effect of government effectiveness in developing countries indicates that institutional improvements may yield particularly high returns in terms of citizen well-being. These findings support targeted interventions that strengthen governance capacity in developing economies.

The significant positive effects of corruption control and freedom of expression highlight the importance of governance quality beyond economic management. These findings are consistent with the broader literature emphasizing that subjective well-being depends not only on material conditions but also on perceptions of fairness, trust, and personal agency. Policies that enhance transparency, accountability, and civic participation



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may therefore contribute to happiness through multiple channels, including but not limited to their effects on economic performance.

The unemployment-happiness relationship documented in this study confirms the substantial non-pecuniary costs of joblessness. The persistence of this effect even after controlling for income suggests that employment provides important psychological and social benefits beyond its economic value. This finding reinforces the importance of active labor market policies and employment support programs as tools for enhancing national well-being.

Conclusion

This study has examined the relationships between economic volatility, unemployment, corruption control, freedom of expression, and national happiness using worldwide panel data from 2008 to 2023. The findings demonstrate that economic stability and institutional quality are both important determinants of citizen well-being, with significant variations in these relationships across developed and developing countries.

The results support several key conclusions. First, economic volatility significantly reduces happiness, with stronger effects in developing countries that may lack adequate institutional buffers. Second, government effectiveness moderates the negative effects of volatility, highlighting the protective role of strong institutions. Third, corruption control and freedom of expression make independent positive contributions to happiness, underscoring the multidimensional nature of institutional quality. Fourth, unemployment reduces happiness through channels beyond income loss, reinforcing the importance of employment as a source of meaning and social integration.

These findings have important policy implications. Policymakers seeking to enhance citizen well-being should prioritize both macroeconomic stability and institutional development. In developing countries, strengthening government effectiveness may be particularly valuable for protecting citizens from the adverse effects of economic fluctuations. Anti-corruption efforts and protections for freedom of expression can contribute to happiness by fostering trust, fairness, and civic engagement. Finally, labor market policies should recognize the broad well-being implications of employment and prioritize job creation and support for the unemployed.

Several limitations should be acknowledged. The use of country-level data limits our ability to examine individual-level heterogeneity in the effects of these factors. The governance indicators, while widely used, may not fully capture the nuances of institutional quality across diverse contexts. Future research should explore these relationships using individual-level data and more granular institutional measures. Longitudinal studies examining the dynamics of happiness responses to institutional changes would also be valuable.

Despite these limitations, this study contributes to our understanding of the complex determinants of national happiness. By documenting the interactions between economic and institutional factors, the findings provide a foundation for evidence-based policies aimed at enhancing citizen well-being in both developed and developing contexts. As governments increasingly recognize happiness as a legitimate policy objective, research of this nature becomes ever more essential for guiding effective interventions.

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