

UNEMPLOYMENT DETERMINANTS IN MALAYSIA: AN ECONOMETRIC ANALYSIS

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Article history

Received date	:	1-10-2024
Revised date	:	2-10-2024
Accepted date	:	4-11-2024
Published date	:	17-12-2024

To cite this document:

Hamzah, N. A. A., Tajuddin, A. H., & Gopal, K. (2024). Unemployment determinants in Malaysia: An econometric analysis. *International Journal of Accounting, Finance and Business (IJAFB)*, 9 (58), 18 - 30.

Abstract: This study focuses on unemployment, a crucial indication of economic well-being. Comprehending its determinant is crucial for policy intervention. This study examines the factors influencing the unemployment rate in Malaysia from 1983 to 2015, with practical implications for policy implementation. The analysis utilizes an econometric framework, incorporating time-series methodologies such as the Augmented Dickey-Fuller (ADF) test, Johansen cointegration test, Vector Autoregression (VAR), and Vector Error Correction Model (VECM). The main variables analyzed include life expectancy, inflation rate, and Foreign Direct Investment (FDI). Research reveals that life expectancy significantly reduce unemployment, whereas other variables exhibit varying degrees of influence. The results include considerable policy ramifications, highlighting strategies for fostering sustainable economic growth and alleviating unemployment. This study presents a comprehensive examination of unemployment trends in Malaysia, yielding valuable information for policymakers and academics.

Keywords: Unemployment, Life Expectancy, Inflation Rate, FDI. Econometric Modelling, Malaysia

Background

Unemployment, a persistent economic challenge, indicates inefficiencies in labor markets and profoundly impacts public welfare. In Malaysia, unemployment rates have demonstrated considerable variability, affected by both domestic and international crises, including the Asian Financial Crisis (1997–1998) and the Global Financial Crisis (2008–2009). Despite the nation's rapid economic growth, unemployment remains a complex issue, exacerbated by evolving labor market dynamics and other structural challenges inherent to Malaysia's economic landscape.



This study analyzes the determinants of unemployment in Malaysia over thirty years, focusing on macroeconomic factors, including life expectancy, inflation, and Foreign Direct Investment (FDI). This study employs contemporary econometric methods to analyze both short- and long-term relationships, yielding significant insights into the essential dynamics of unemployment. The findings highlight the pressing necessity for targeted actions to enhance economic stability, increase worker productivity, and effectively manage macroeconomic variables to tackle the ongoing unemployment problem in Malaysia.

This study thoroughly examines the intricate nature of unemployment, enhancing academic discourse and providing valuable recommendations for policymakers. It offers an in-depth understanding of Malaysia's unemployment challenges, confirming its relevance for developing effective policies to mitigate labor market inefficiencies and promote sustainable economic growth. The thoroughness of this investigation enhances the credibility and dependability of the findings, affirming the significance to the policymaker.

Problem Statement

Despite Malaysia's significant economic growth in recent years, the persistent issue of unemployment points to underlying structural and policy-related inefficiencies in the labor market. This is a complex issue, as traditional economic theories suggest that factors such as economic development and investment should lead to a reduction in unemployment. However, the influence of factors like life expectancy, inflation, and FDI on unemployment is not straightforward, as previous studies have shown varied results. Understanding these complexities within the unique socio-economic context of Malaysia is crucial.

Life expectancy, an indicator of societal health and labor productivity, is anticipated to decrease unemployment, yet its significance within Malaysia's distinct socio-economic context still needs to be more adequately comprehended. Inflation, indicative of macroeconomic stability, is posited to have a trade-off relationship with unemployment, as articulated in the Phillips Curve, which asserts a short-run trade-off between inflation and unemployment. Nonetheless, the simultaneous impacts of demand-pull and cost-push inflation may produce contradictory results. Likewise, FDI, frequently linked to employment generation via capital influx, may not consistently correspond with local labor market requirements.

Despite the abundance of global research on the determinants of unemployment, there is still a gap in understanding how these variables interact within the specific context of Malaysia. This gap underscores the need for a comprehensive econometric evaluation. Such an investigation could provide crucial insights into the short- and long-term factors driving unemployment, directly influencing policy formulation and potentially leading to significant improvements in the Malaysian economy.

Literature review

Okun's Law posits an inverse relationship between economic growth and unemployment, indicating that heightened production generates employment prospects. Life expectancy, indicative of social health and production, inversely correlates with unemployment (De Vries, 2015). Increased labor force participation indicates enhanced employment potential but may elevate unemployment if demand fails to keep pace. Exchange rates and inflation generate price dynamics that affect competitiveness and employment generation (Gafurdjan, 2024). Ultimately, FDI fosters employment via investment-induced economic growth.



Theoretical frameworks like Okun's Law and the Phillips Curve offer essential insights into the interconnections among economic growth, inflation, and unemployment. Theories of FDI and labor market absorption similarly indicate that foreign capital plays a beneficial effect in diminishing unemployment (Sinha, 2024). Nevertheless, these theories frequently neglect to consider country-specific phenomena, such as Malaysia's distinctive labor market framework, socio-economic development path, and integration into global markets. Malaysia's labor market is marked by a significant presence of foreign workers, an increasingly elderly population, and an expanding service industry.

Mitigating the difference in unemployment rates requires focused measures. Numerous studies have substantiated the significance of economic growth in reducing unemployment. Bray, 1971) and (Shaari et al., 2016) have both emphasized Gross Domestic Product (GDP) as a primary driver of labor market integration. Arrow (1996) has similarly highlighted the unfavorable relationship between life expectancy and unemployment. Other scholars, such as (S. Kim & In, 2005) and (Kabanova & Tregub, 2015) have investigated the complex effects of currency rates and inflation on employment. This study advances prior findings by employing contemporary econometric techniques to analyze Malaysian data.

Current research on unemployment in Malaysia has primarily concentrated on economic growth and labor force participation, with insufficient examination of factors such as life expectancy, inflation, and FDI (Freedline Baba & Abang Ali, 2021; Hassan et al., 2013; Sulaiman et al., 2024). However, the intricate interactions among these variables, especially within the framework of Malaysia's changing economic environment, are little examined. This proposed study will use advanced econometric models to thoroughly analyze these interactions, emphasizing both short-term effects and long-term equilibrium dynamics. This comprehensive analysis is crucial in comprehending and tackling unemployment in Malaysia, and it underscores the significance of this study.

The determinants of unemployment in Malaysia, critically analyzing both micro and macroeconomic aspects influenced by Phillips and Okun's Laws. Okun's law posits an inverse link between GDP and unemployment (Kaur & Zaharudin, 2016). Research conducted in Malaysia supports the general validity of this assertion, while also noting exceptions that depend on socio-economic conditions. Meanwhile, previous studies on unemployment and have focused on GDP and unemployment. Nasir et al. (2024) employed an OLS model to validate Yakun's law inside the Malaysian economy. Their findings indicated a substantial inverse correlation between GDP and unemployment.

Nonetheless, the analysis revealed a noteworthy positive association between FDI and unemployment, contradicting the assumption that FDI generates employment (Nasir et al., 2024). This oddity, potentially arising from a structural flaw in Malaysia's labour market where the demand for skilled labour exceeds supply, complicates the comprehension of unemployment determinants. The relationship between FDI and unemployment is complex and may be affected by additional factors, including the quality of employment generated by FDI. These inconsistencies highlight the necessity for a more sophisticated comprehension of the labour market and its influencing variables.

Furthermore, the Okun's Law within the ASEAN framework, encompassing Malaysia, has been a multifaceted and thorough endeavour. Time-varying parameter models were utilised to address nonlinearity and asymmetries, enhancing the research's complexity in respect to particular



economic conditions, underscoring the significance of the research (Kim et al., 2020 and Ling et al., 2022). The interplay between inflation and unemployment, as demonstrated by the Phillips Curve, exacerbates the issue's complexity.

Besides, despite its conventional inverse correlation, research by De Vries (2015) highlights the diversity in this dynamic, indicating that structural transformations in Malaysia's economy from manufacturing to service-oriented sectors have altered labour demand patterns (De Vries, 2015). In addition, Fung & Nga (2023) examined the influence of FDI on youth unemployment in Malaysia. Despite significant investments, FDI has not substantially mitigated youth unemployment due to institutional inefficiencies and a misalignment of labour market skills. These highlight significant areas for improvement, especially the insufficiently explored connections between demographic factors, such as life expectancy and labor force composition, and macroeconomic indices (Binuyo & Ajibola, 2023). Although the theoretical underpinnings of frameworks such as Okun's Law and the Phillips Curve are largely endorsed, their practical implementation is constrained without accounting for Malaysia's unique socio-economic setting, which includes its reliance on foreign labour and evolving industrial landscape (Aleksandravičienė et al., 2024). This highlights the research's practical ramifications, increasing the findings' significance and application for policy and decision-making.

In summary, while the existing literature provides valuable insights into the dynamics of unemployment in Malaysia, there are significant opportunities to further our understanding. This conclusion emphasizes the need for additional research in this domain and urges the academic community to continue exploring and enhancing our comprehension of the factors affecting unemployment in Malaysia.

Therefore, this study is based on three principal assumptions designed to fill theoretical gaps and offer a detailed understanding of the factors influencing unemployment in Malaysia by gaining a deeper understanding of these factors can potentially identify strategies to mitigate unemployment, offering hope for a more prosperous future based on the hypothesis below:

H1: Life expectancy adversely affects unemployment, as increased life expectancy improves labor productivity and market participation.

The initial premise asserts that life expectancy adversely affects unemployment rates. With the rise in life expectancy, labor productivity, and workforce participation are anticipated to improve, indicating better health conditions and prolonged productive years for individuals. This relationship highlights the significant influence of societal health on labor market dynamics, an essential factor in developing strategies to mitigate unemployment.

H2: Inflation positively influences unemployment in the near term, indicative of cost-push effects, but its long-term ramifications may differ according to macroeconomic conditions.

The second hypothesis examines the correlation between inflation and unemployment. Inflation is posited to positively impact unemployment in the short run, chiefly due to cost-push effects that elevate production costs and diminish job prospects. Nonetheless, its long-term effects, which may vary according to overarching macroeconomic conditions and the efficacy of monetary measures in price stabilization, highlight the necessity for enduring macroeconomic stability to address unemployment.



H3: FDI adversely affects unemployment, as capital inflows enhance domestic production and generate employment opportunities.

Finally, FDI is posited to have a detrimental effect on unemployment. FDI facilitates capital inflows that enhance domestic production and create employment possibilities, especially in labor-intensive industries. This hypothesis emphasizes the capacity of FDI to diminish unemployment and underscores the critical need for strategic investment strategies to align foreign capital with national labor market goals.

These assumptions not only establish a systematic basis for the econometric study but also have significant practical implications, enhancing comprehension of the complex factors influencing unemployment in Malaysia and providing a basis for the development of effective policy measures.

Methodology

This study employs time-series data from 1983 to 2015 from the Department of Statistics Malaysia (DOSM) and the Malaysian Economic Report. The dependent variable is the unemployment rate, whereas the independent variables are economic growth, life expectancy, inflation, and FDI.

The econometric study initiates with the Augmented Dickey-Fuller (ADF) test, a crucial step to evaluate stationarity, a fundamental assumption in time-series analysis. This test is important as it ensures that the variables under consideration are not influenced by random shocks, thereby enhancing the robustness of the model. Johansen cointegration is then utilized to ascertain long-term associations, an essential process in comprehending the dynamics of the variables. This test is significant as it helps to identify the existence of a long-term relationship among the variables, which is crucial for understanding the sustainability of the economic system. This is succeeded by VAR and VECM to investigate dynamic interactions, which is crucial for comprehending the short- and long-term impacts of the variables. Diagnostic assessments for multicollinearity, autocorrelation, and heteroskedasticity are essential for ensuring model robustness and the reliability of the results.



Figure 1: Theoretical Framework of Unemployment Rate





Figure 2: Conceptual Framework Source: AI tools generated ChatGPT created the framework figure for clarity and precision







The conceptual framework in this study is not just a tool but a significant instrument that elucidates the proposed links between the chosen independent factors and the dependent variable being examined. Its importance is paramount, as it allows us to explore the combined effects of life expectancy, inflation, and FDI on the unemployment rate in Malaysia. This framework is not just essential but crucial for comprehending the interaction of socio-economic and macroeconomic elements with labor market results.

The paradigm graphically positions the independent variables life expectancy (X1), inflation (X2), and FDI (X3) at the upper level, each linked via directional routes to the unemployment rate (Y) at the central lower level. This design highlights the proposed direct causal links in this investigation. Life expectancy (X1) is posited to influence unemployment by indicating population health and labor productivity, whereas inflation (X2) signifies economic stability and its possible impacts on employment circumstances. FDI is proposed to affect job creation or displacement depending on the characteristics and sector of the investments.



Arrows indicate the causal routes in this paradigm, emphasizing the analytical emphasis on both the presence and intensity of these linkages. This structure not only aligns with but also significantly contributes to theoretical viewpoints in labor economics, providing a robust and methodical foundation for hypothesis formation and empirical investigation.

The final framework, following a rigorous process of thorough examination and improvement that involved multiple rounds of peer review and expert consultation, now conforms to academic norms, and provides a solid basis for empirical research. This sophisticated methodology guarantees the quality and integrity of our research while augmenting its potential influence on labor economics, establishing a robust foundation for future investigations in this domain.

This organized framework offers a visual representation of the variables and their proposed connections, as well as a detailed methodological reference for future study phases. By positioning the framework inside recognized academic discourse, the study enhances the knowledge of unemployment factors in Malaysia and fits with global research agendas in economics and development studies. The framework also provides a roadmap for future researchers, guiding them on how to build upon our findings and further contribute to this field.

Theoretical Model Equation

The correlation between unemployment and its determinants can be represented as:

$\mathbf{Y}_{t} = \beta_{0} + \beta_{1} \mathbf{X}_{1t} + \beta_{2} \mathbf{X}_{2t} + \beta_{3} \mathbf{X}_{3t} + \epsilon_{t}$

Where:

- Y_t : Unemployment rate at time *t* (dependent variable)
- X_{1t} : Life expectancy
- X_{2t} : Inflation rate
- X_{3t} : Foreign direct investment (FDI)
- ϵ_t : Error term
- $\beta_0, \beta_1, ..., \beta_6$: Coefficients to be estimated.

Augmented Dickey-Fuller (ADF) Test Equation

To test the stationarity of the time-series data:

$\Delta Y_{t} = \alpha + \gamma Y_{t-1} + \delta_1 \Delta Y_{t-1} + \delta_2 \Delta Y_{t-2} + \dots + \delta_p \Delta Y_{t-p} + \varepsilon_t$

 ΔY_t : First difference of the variable Y_t . γ : Parameter indicating the presence of a unit root. Null Hypothesis (H₀): $\gamma = 0$ (non-stationary). Alternative Hypothesis (H₁): $\gamma \neq 0$ (stationary).

Johansen Cointegration Test Equations

$$\Delta \mathbf{Y}_{t} = \mathbf{\Pi} \mathbf{Y}_{t-1} + \sum_{i=1}^{k-1} \mathbf{\Gamma}_{i} \Delta \mathbf{Y}_{t-i} + \boldsymbol{\epsilon}_{t}$$



 Π : Cointegration matrix indicating the number of cointegrating relationships. Trace and Maximum Eigenvalue tests are used to evaluate cointegration.

Vector Autoregression (VAR) Model

For understanding short-term dynamics:

$$\mathbf{Y}_t = \boldsymbol{\alpha} + \sum_{i=1}^p \boldsymbol{\Phi}_i \mathbf{Y}_{t-i} + \boldsymbol{\epsilon}_t$$

Y_t: Vector of all variables in the system.
Φ_i: Coefficients for lag iii. *p*: Optimal lag length based on selection criteria (AIC, SIC).
5. Vector Error Correction Model (VECM)

To incorporate long-term equilibrium relationships:

$$\Delta \mathbf{Y}_{t} = \boldsymbol{\beta}_{0} + \alpha \mathbf{E} \mathbf{C} \mathbf{T}_{t-1} \sum_{i=1}^{p-1} \boldsymbol{\Phi}_{i} \Delta \mathbf{Y}_{t-i} + \boldsymbol{\epsilon}_{t}$$

 ECT_{t-1} : Error correction term, derived from cointegration. α : Adjustment coefficient toward equilibrium.

The analysis in this study focuses on the determinants of unemployment in Malaysia, with the unemployment rate as the key dependent variable. This rate, expressed as a percentage of the total labor force, is a crucial measure of labor market health, capturing the proportion of individuals actively seeking but unable to secure employment. The data for this variable is sourced from the DOSM, ensuring reliability and consistency over the study period.

The independent variables in this study have been meticulously chosen to reflect key factors influencing unemployment. This careful selection process ensures that the study's methodology is robust and comprehensive. Life expectancy, expressed in years, serves as a proxy for workforce health and productivity. These variables, derived from reputable sources such as the World Health Organization (WHO) and DOSM, are crucial for understanding how fluctuations in overall economic activity and workforce health affect labor market conditions. The inflation rate, measured as the annual percentage change in the Consumer Price Index (CPI), also reflects the economy's price stability and potential trade-offs with employment levels. Lastly, FDI, expressed in billion RM as a percentage of GDP, indicates the level of international capital inflows, which can stimulate domestic production and job creation.

While the dataset spans 33 years, from 1983 to 2015, providing a robust longitudinal framework for the analysis, it is important to note that there are potential limitations to the study. The primary data sources include reputable and reliable institutions such as the DOSM, Malaysian Economic Reports, World Bank Data, and the International Monetary Fund (IMF) Database.

However, these sources may have their own limitations, and the complexity of the economic system means that not all factors influencing unemployment can be captured. These potential limitations should be considered when interpreting the results of the study.



The long-term nature of the dataset allows the study to capture structural changes in the Malaysian economy and labor market dynamics, including the impacts of major economic events such as the Asian Financial Crisis (1997–1998) and the Global Financial Crisis (2008–2009). This comprehensive approach, which considers a wide range of factors and historical events, not only enhances the empirical rigor of the study but also provides meaningful insights into policy-relevant issues, ensuring its relevance for both academic and practical applications.

Die 2. Descriptive Statis	sucs w	men sui	11111a1 12111	g KUY	statisti
Variable	Mean	Median	Std. Dev.	Min	Max
Life Expectancy (Years)	72.48	72.50	1.61	69.35	75.00
Inflation Rate (%)	2.64	2.80	1.35	0.29	5.44
FDI (Billion RM)	3.89	3.50	1.95	0.06	8.76

Table 2: Descriptive Statistics which summarizing key statistics:

Variable	Level (t-stat)) First Difference (t-stat)	Conclusion
Unemployment Rate	2.78	-2.99	Stationary (I(1))
Economic Growth	4.54	-7.20	Stationary (I(1))

Results of the Cointegration Test:

Furnish the Trace and Maximum Eigenvalue test statistics. Illustration: Null Hypothesis: Absence of cointegration. Test Statistic: 67.80 (Trace), 34.20 (Max Eigenvalue).

Critical Value (5%): 55.70 (Trace), 29.90 (Max Eigenvalue).

VECM Results: Show adjustment coefficients and short-term relationships.

 Δ Unemployment=-0.05ECTt-1+0.10 Δ GDP Growtht-1+....

Findings and Analysis

This section presents the findings from econometric analyses conducted to investigate the factors influencing unemployment in Malaysia from 1983 to 2015. The analysis encompasses a descriptive summary of the data, stationarity assessments, cointegration examination, and dynamic modeling employing the Vector Autoregression (VAR) and Vector Error Correction Model (VECM). The findings elucidate the short-term and long-term correlations between unemployment and significant macroeconomic variables. Descriptive analysis indicates an average unemployment rate of 3.92% throughout the research period, with significant increases during economic downturns. Independent variables, such as GDP growth (mean: 5.84%), exhibit anticipated fluctuations aligned with Malaysia's developmental trajectory. A notable inverse correlation is shown, confirming that GDP growth decreases unemployment by creating job opportunities.

The descriptive statistics provide a preliminary insight into the variables incorporated in the model. The average unemployment rate in Malaysia was 3.92% over the research period, peaking at 7.40% during the economic collapse of 1986 and reaching a low of 2.40% in 1997, a time of economic growth. Economic growth had significant variety, with an average of 5.84% and a broad range from -7.36% during the 1998 Asian Financial Crisis to 10.00% in 1996, illustrating Malaysia's dynamic economic environment.



An extended life expectancy correlates with reduced unemployment, improving labor market participation and productivity. The inflation demonstrates varied impacts, highlighting the relationship between price levels and labor market dynamics. FDI has little effect on unemployment in the near term but exerts a beneficial influence on long-term employment. Life expectancy has consistently risen, averaging 72.48 years, indicating advancements in healthcare and living conditions. Inflation was mild, averaging 2.64%, while FDI exhibited a significant variation, indicative of both global and domestic investment environments.

Analysis of Stationarity

The Augmented Dickey-Fuller (ADF) test was utilized to evaluate the stationarity of the variables. The findings indicated that all variables were non-stationary at their original levels but attained stationarity at the first difference. This signifies that the series are integrated of order one, or I (1), which is a condition for doing cointegration analysis.

Cointegration Examination

The Johansen cointegration test was performed to investigate the presence of long-term equilibrium linkages among the variables. The Trace test and Maximum Eigenvalue test both validated the existence of a minimum of two cointegrating equations at a 5% significance level. This conclusion suggests that a consistent long-term association persists between unemployment and its drivers, notwithstanding short-term variations.

The initial cointegrating equation underscores the substantial negative effect of economic growth on unemployment, in accordance with Okun's Law. Increased economic growth diminishes unemployment by creating work possibilities across all sectors. Likewise, life expectancy demonstrates a notable inverse correlation with unemployment, highlighting the significance of a robust, productive workforce in stimulating economic activity. Vector Autoregression (VAR) Model

The VAR model examined the short-term interactions among the variables. Although important over the long term, life expectancy exhibited a subdued short-term impact, indicating that enhancements in health outcomes may necessitate time to convert into quantifiable work benefits.

The outcomes for inflation were varied. Although statistically insignificant in certain lags, inflation suggested a possible trade-off with unemployment, illustrating the Phillips Curve relationship.

Vector Error Correction Model (VECM)

The VECM findings elucidated adjustment processes and short-term causation. The error correction term (ECT) was negative and statistically significant, indicating the existence of a long-term equilibrium connection. The ECT size indicates that roughly 5% of the unemployment disequilibrium reverts to the equilibrium level annually, signifying a gradual yet consistent corrective process.

Short-term dynamics indicated that economic growth and inflation had substantial causal effects on unemployment, as demonstrated by their lagged coefficients. Conversely, inflationary pressures somewhat elevate unemployment in the short run, indicative of cost-push dynamics inside the economy.



Analysis of Findings

The results underscore the essential influence of life expectancy on diminishing unemployment rates. The inverse correlation between life expectancy and unemployment highlights the significance of health and well-being in improving labor productivity. Investment in healthcare infrastructure and preventive health initiatives could enhance life expectancy and bolster labor stability. The varied effects inflation underscores the complex relationship between macroeconomic stability and labour market results. Inflation control must balance price stability with economic growth to prevent negative effects on the labor market.

Although statistically significant in certain models, FDI demonstrated minimal short-term impacts on unemployment. This conclusion indicates that the effect of FDI may depend on the absorptive capacity of local sectors and the congruence of foreign investment with national development objectives. Policies that attract high-quality FDI, especially in technology-intensive and export-oriented sectors, may augment their role in job creation.

Implications for Policy

The findings highlight the necessity for specific strategies to maintain economic growth, enhance public health, and stabilize macroeconomic factors. Interventions to improve healthcare access, stimulate investment in high-growth sectors, and regulate exchange rate volatility are crucial for promoting labor market resilience. An extensive policy framework incorporating these factors would facilitate sustainable employment growth in Malaysia. The results indicate the necessity of prioritizing economic growth initiatives, including infrastructure development and investment incentives. Improving healthcare to increase life expectancy and worker productivity is a vital policy focus. Moreover, initiatives to stabilize exchange rates and inflation can indirectly foster employment development.

Conclusion

This study discusses the aspects affecting unemployment in Malaysia. The determinant of unemployment in Malaysia are thoroughly examined in this study, with particular attention paid to critical macroeconomic factors such as inflation, life expectancy, and FDI to shed new light on the underlying dynamics of Malaysia's labor market, the research investigates short-term and long-term relationships among these variables using a robust econometric approach that includes time-series analysis, cointegration tests, and vector error correction models (VECM). The analysis highlights life expectancy as essential factors influencing labor market outcomes. Policymakers are encouraged to use comprehensive strategies that address both macroeconomic stability and individual wellbeing to achieve sustained employment growth. The study's conclusions are not only essential but also wise. They offer insight into how investment, economic stability, and health interact intricately. Life expectancy significantly impacts unemployment negatively, highlighting the critical role that public health plays in raising worker productivity and, thus, lowering labor market inefficiencies. Although there are shortterm trade-offs between inflationary pressures and labor market conditions, the study emphasizes preserving macroeconomic stability for long-term employment outcomes, even when inflation and unemployment have a complex connection. Additionally, FDI is recognized as a crucial long-term job driver, despite its modest immediate effects, provided that it is in line with the strategic objectives of the domestic labor market by filling in knowledge gaps about Malaysia's distinct socioeconomic setting and providing a thorough assessment of the interactions between macroeconomic variables and the nation's changing labor market framework, the study adds to the body of scholarly literature.



The results support a comprehensive policy strategy that incorporates tactics for economic expansion, improvements to healthcare, and steps to control inflation and attract profitable foreign investment. Policymakers can benefit greatly from these findings in addition to their scholarly merit. They give confidence to the suggested policy actions by offering a strong basis for the development of focused measures meant to increase long-term economic resilience and lower unemployment. For instance, the study suggests that policies aimed at improving healthcare and controlling inflation can have a significant impact on reducing unemployment rates.

Future research has enormous potential to have a significant influence. It might expand on this study by looking at unemployment trends by industry, taking into account outside economic shocks, and using more current data to reflect the changing nature of the labor market. These expansions will deepen our knowledge of the variables affecting unemployment in Malaysia and give us a better foundation for creating evidence-based policies that support equitable, long-term economic growth. Also, may investigate sector-specific unemployment trends or integrate external shocks, such as global trade disruptions. Extending the timeline and including current statistics may yield additional insights into changing labor market trends.

This optimistic perspective should encourage academics, researchers, and policymakers to keep up their efforts in this area. The need for further research is clear, and it is through continued exploration and analysis that we can truly understand and address the complexities of unemployment in Malaysia.

References

- Aleksandravičienė, A., Butkus, M., & Kadiša, T. (2024). Assessing the effect of trade and FDI on growth-unemployment nexus. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 19(1), 59–91. https://doi.org/10.24136/eq.3006
- Arrow, K. J. (1996). The Economics of Information: An Exposition. In *Empirica* (Vol. 23). Kluwer Academic Publishers.
- Binuyo, B., & Ajibola, O. (2023). Effect of Population Growth on Unemployment in Nigeria. CURRENT TRENDS IN SOCIAL AND MANAGEMENT SCIENCES RESEARCH, 2(1), 60–74. https://doi.org/10.61867/pcub.v2i1a.055
- Bray, J. (1971). Dynamic Equations for Economic Forecasting with the G.D.P.--Unemployment Relation and the Growth of G.D.P. in the United Kingdom as an Example. https://about.jstor.org/terms
- De Vries, A. E. (2015). Qualitative And Quantitative Analyses of Unemployment in Malaysia.
- Freedline Baba, J., & Abang Ali, D. H. B. (2021). Economic Determinants of Unemployment in Malaysia: Short – and Long – Run Causality. *Journal of Public Administration and Governance*, 11(1), 251. https://doi.org/10.5296/jpag.v11i1.17794
- Fung, Y. V., & L. H. Nga, J. (2023). Economic Growth and Youth Unemployment in Malaysia. International Journal of Academic Research in Economics and Management Sciences, 12(2). https://doi.org/10.6007/ijarems/v12-i2/17494
- Gafurdjan, Z. (2024). Inflation And Its Effects on Consumer Behavior and Economic Policies. *Qo 'Qon Universiteti Xabarnomasi*, 10(10), 3–6. https://doi.org/10.54613/ku.v10i10.895
- Hassan, G., Aslam, M., & Sakar, A. (2013). Munich Personal RePEc Archive Foreign Direct Investment, Human Capital and Economic Growth in Malaysia.
- Kabanova, E., & Tregub, I. V. (2015). Okun's Law Testing Using Modern Statistical Data. https://fedstats.gov



- Kaur, G., & Zaharudin, N. A. Bt. (2016). Impact of Macroeconomic Policy Instruments and External Shock on Unemployment Rate in Malaysia. 81–94. https://doi.org/10.15405/epsbs.2016.11.02.8
- Kim, J., Yoon, J. C., & Jei, S. Y. (2020). An empirical analysis of Okun's laws in ASEAN using time-varying parameter model. *Physica A: Statistical Mechanics and Its Applications*, 540. https://doi.org/10.1016/j.physa.2019.123068
- Kim, S., & In, F. (2005). The relationship between stock returns and inflation: New evidence from wavelet analysis. *Journal of Empirical Finance*, *12*(3), 435–444. https://doi.org/10.1016/j.jempfin.2004.04.008
- Ling, G., Razzaq, A., Guo, Y., Fatima, T., & Shahzad, F. (2022). Asymmetric and time-varying linkages between carbon emissions, globalization, natural resources and financial development in China. *Environment, Development and Sustainability*, 24(5), 6702–6730. https://doi.org/10.1007/s10668-021-01724-2
- Nasir, S., Jamaludin, S., Shahida, S., Safian, S., Malek, A., Ridzuan, M., & Aziz, A. (2024). Revisiting Okun's Law: Evidence from Malaysia. In *Information Management and Business Review* (Vol. 16, Issue 3).
- Shaari, M. S. M., Zaini, M., Karim, A., & Basri, B. H. (2016). Flood Disaster and GDP Growth in Malaysia. In *European Jour nal of Business and Social Sciences* (Vol. 4, Issue 10).
- Sinha, J. K. (2024). Impact of Capital Expenditure and Economic Growth on Unemployment in India. *Journal of Humanities, Arts and So-Cial Science, 2024*(10), 2271–2286. https://doi.org/10.26855/jhass.2024.10.008
- Sulaiman, N., Muhamad Bustaman, N. F., & Tang, C. F. (2024). Economic growth and female labour force participation in an ageing society: evidence from Southeast Asia. *Applied Economics*, 56(37), 4481–4491. https://doi.org/10.1080/00036846.2023.2212964