

**QUALITATIVE AND QUANTITATIVE ANALYSES OF UNEMPLOYMENT  
IN MALAYSIA**

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## ABSTRACT

This paper attempts to provide a overview of the determinants of unemployment in Malaysia. Unemployment's influencing factors are traditionally described as either micro- or macroeconomic to a nation. A qualitative investigation of the microeconomic variables for unemployment in Malaysia and a quantitative time series analysis of macroeconomic variables for unemployment in Malaysia are made. The shift of the secondary sector towards the tertiary sector and the use of high-tech production is held to be of importance for the unemployment rate in Malaysia. On a macroeconomic level, GDP per capita and the inflation rate, Okun's Law and the Phillips Curve, are analyzed. This study provides an overview of Malaysian unemployment in both a qualitative and quantitative sense. It forms the foundation of comparison of economical phases gone through by developed countries.

**Keywords:** Unemployment, Malaysia, GDP, Inflation, Okun's Law, Phillips Curve, Manufacturing, Service.

## **ABSTRAK**

Kertas kerja ini cuba untuk memberi gambaran keseluruhan faktor-faktor penyumbang kepada pengangguran di Malaysia. Faktor yang mempengaruhi kadar pengangguran secara tradisionalnya digambarkan sebagai samaada dalaman atau luaran untuk negara. Satu kajian kualitatif pembolehubah dalaman untuk pengangguran di Malaysia dan analisis siri masa kuantitatif pembolehubah luaran untuk pengangguran di Malaysia dijalankan. Peralihan daripada ekonomi pembuatan kepada ekonomi berasaskan industri perkhidmatan dan penggunaan pengeluaran berteknologi tinggi didapati menjadi penting secara dalaman di Malaysia. Pada tahap keluaran dalam Negara kasar (KDNK) per kapita makroekonomi dan kadar inflasi, dengan itu Undang-undang Okun dan Keluk Phillips dianalisis. Kajian ini memberikan gambaran keseluruhan Malaysia dalam erti kata yang kualitatif dan kuantitatif. Ia membentuk asas perbandingan fasa ekonomi yang dilalui oleh negara-negara maju.

Kata Kunci: Pengangguran, Malaysia, KDNK, inflasi, Undang-undang Okun, Keluk Phillips, Pembuatan, Perkhidmatan.

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of the Study

Unemployment is associated with periods of time in which an individual actively seeks to find a job and mentally prepares him or herself to work at any level of wage in the market. This is referred to as a *strict* or *narrow* definition of unemployment, where the person actively seeks for work. The *broad* perspective includes those who are unemployed and not actively looking for a job. Another important type of unemployment is *cyclical unemployment* which is a factor of overall unemployment that relates to the cyclical trends in growth and production that occur within the business cycle.

Unemployment has been analyzed throughout the last and current century. A large share of the research has focused on the developed world. The studies have surpassed the structural economic phases which developing countries are currently going through. The current states of affair in developing countries are likely to show signs of similarities to economic phases of developed countries dating years back. As for developing countries, the trends of unemployment have been extensively analyzed. Effects of a variety of factors determining unemployment have been extensively investigated throughout the middle and end of the 20<sup>th</sup> century for developed countries. This analysis might prove to show similarities to developing countries. If we are to analyze the current state of affairs for specific developing countries, the future might be reflected in what happened to developed countries in the past decades.

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## REFERENCES

- Anyanwu, J. C. (2013). "Characteristics and macroeconomic determinants of youth employment in Africa". *African Development Review*, 25 (2) 107-129
- Blanchard, O., Galí, J. (2005). "Real wage rigidities and the new Keynesian model". *NBER Working Paper*, 11806, 1-36
- Burgen, E., Meyer, B., Tasci, M. (2012). "An elusive relation between unemployment and GDP growth: Okun's law". *Economic Trends*, Federal Reserve Bank of Cleveland
- Boubtane, E., Coulibaly, D., Rault, C. (2013). "Immigration, unemployment and GDP in the host country: bootstrap panel Granger causality analysis on OECD countries. *Economic Modelling*, Elsevier, 33, 261-269
- Brunnermeier, M. K. (2009). "Deciphering the liquidity and credit crunch 2007-2008". *Journal of Economic Perspectives*, 23 (1), 77-100
- Cowdery, B., Goyal, A. (2000). "Understanding the financial crisis in Asia". *Pacific-Basin Finance Journal*, 8 (1), 135-152
- Dickens, W. T., Lang, K. (1995). "An analysis of the nature of unemployment in Sri Lanka". *The Journal of Development Studies*, 31 (4) 620-636
- Eita, J. H., Ashipala, J. M. (2010). "Determinants of unemployment in Namibia". *International Journal of Business and Management*, 5 (10), 92-104
- Eriksson, C. (1997). "Is there a trade-off between employment and growth". *Oxford Economics Papers*, 49 (1) 77-88

- Falkinger, J., Zweimuller, J. (2000). "Learning for employment, innovating for growth". *Journal of Institutional and Theoretical Economics*, 156 (1), 455-472
- Foley, M. C. (1997). "Determinants of unemployment duration in Russia". *Center Discussion Paper*, 779, Yale University
- Galuščík, K. (2007). "Structural and cyclical unemployment: what can be derived from the matching function". *Czech Journal of Economics and Finance*, 5(4), 102-125
- Hill, H. (2014). "Is there a Southeast Asian development model". *University of Freiburg Discussion Papers Series*, 26 (1), 1-23
- Kamal, A. H., Azura, A. R. (2006) "Malaysia: enhancing job strategy". *Ministry of Human Resources Policy Division*, 7 (D3), 1-14
- Kincaid, S. (2004) "Technology in human services: using technology to improve quality of life". *Monographic Series*, 1-50
- Kingdon, G., Knight, J. (2001). "Race and the Incidence of Unemployment in South Africa". *Centre for the Study of African Economies Working Papers*, 18 (2001)
- Li, J., (2006). "Testing Granger causality in the presence of threshold effects". *International Journal of Forecasting*, 22 (2006), 771-780
- Lim, C. P. (1987). "Changes in the Malaysian economy and trade trends and prospects". *National Bureau of Economic Research*, 87 (1), 435-466

- Liu, H., Zeng, J. (2008). "Determinants of long-run unemployment". *Southern Economic Journal*, 74 (3) 775-793
- Loganathan, N., Yussof, I., Kogid, M. (2012). "Monetary shock and unstable unemployment in Malaysia: a dynamic interaction approach". *International Journal of Emerging Sciences*, 2 (2), 247-258
- Maqbool, M. S., Sattar, T. M. A., Bhalli, M. N. (2013). "Determinants of unemployment: empirical evidences from Pakistan". *Pakistan Economic and Social Review*, 51 (2), 191-207
- Nguyen, H. M., Cavoli, T., Wilson, J. K. (2012). "The determinants of inflation in Vietnam, 2001-09". *ASEAN Economic Bulletin*, 29 (1) , 1-14
- Odada, J. E. (2008). "Overview of structural transformation of the Namibian economy". Bank of *Namibia Annual Symposium*, 10<sup>th</sup>
- Okun, A. M. (1962). "Potential GNP: Its measurement and significance". *Cowles Foundation Paper*, 190 Yale University
- Oye, N. D., Ibrahim, I., Ahmad, M. S. (2011) "Unemployment in Nigeria: implication on the gross domestic product over the years". *International Journal of Economic Research*, 2 (1), 66-71
- Phillips, A. W. (1958). "The relationship between unemployment and the rate of change of money wages in the United Kingdom 1861-1957". *Economica*, 25 (100), 283-299

- Sackey, H. A., Osei, B. (2006). "Human resource underutilization in an era of poverty reduction: an analysis of unemployment and underemployment in Ghana". *African Development Review*, 18 (2) 221-247
- Shackleton, J. R. (1985) "Is the labour market inflexible?". *Royal Bank of Scotland Review*, 47 (1) 27-41
- Sögner, L. (2001). "Does the Austrian unemployment–GDP relationship exhibit structural breaks?". *Empirical Economics*, 26 (2001) 553-564
- Tang, C. F. (2009). "The linkages among inflation, unemployment and crime rates in Malaysia". *School of Social Sciences, Universiti Sains Malaysia*, 3 (1), 50-61
- Valadkhani, A. (2003). "The causes of unemployment in Iran: and empirical investigation". *International Journal of Applied Business and Economic Research*, 1 (1), 21-33
- Wadud, I. K. M. M. (2007). "Productivity growth and efficiency change in Malaysian manufacturing: recent evidence from disaggregated data". *School of Accounting, Economics and Finance, Deakin University*, 12 (2007) 1-24
- Wolde-Rufael, Y. (2014). "Electricity consumption and economic growth in transition countries: a revisit using bootstrap panel Granger causality analysis". *Energy Economics, Elsevier*, 44 (2014) 325-330
- Yoder, J. (2007). "Dynamic Models". *WSU Econometrics II*, 91-115