IMPORTANCE OF EMPLOYMENT TO POPULATION RATIO (EPR) AS KEY INDICATORS OF LABOUR MARKET IN MALAYSIA

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ABSTRAK

Nisbah guna tenaga kepada penduduk adalah salah satu penunjuk utama pasaran buruh. International Labour Organisation (ILO) membangunkan panduan untuk memperkukuhkan pemantauan pasaran buruh melalui penunjuk utama pasaran buruh, termasuk nisbah guna tenaga kepada penduduk. Di Malaysia, Jabatan Perangkaan mengumpul dan menghasilkan statistik tenaga buruh selama bertahun-tahun. Artikel ini mempersembahkan kepentingan nisbah guna tenaga kepada penduduk sebagai penunjuk utama berbanding kadar pengangguran, kadar penyertaan tenaga buruh dan nisbah. Data Penyiasatan Tenaga Buruh bagi tempoh 1982 hingga 2012 digunakan untuk menganalisis kepentingan nisbah guna tenaga kepada penduduk di Malaysia. Penemuan daripada artikel ini menyimpulkan bahawa nisbah ini digunakan untuk menilai keupayaan ekonomi dalam tempoh jangka panjang dan oleh itu ia digunakan sebagai perkaitan dengan kadar pekerjaan; kadar pengangguran; kadar penyertaan tenaga buruh di Malaysia; pertumbuhan pekerjaan; menangani isu gender dalam aktiviti pasaran buruh; serta berkait rapat dengan nisbah tanggungan.

Kata kunci: Nisbah guna tenaga kepada penduduk

ABSTRACT

Employment-to-population ratio (EPR) is the one of key indicators of labour market. International Labour Organisation (ILO) builds a guide for strengthening monitoring of labour markets via key indicators of labour market include employment-to-population ratio. In Malaysia, Department Of Statistics has been collecting and producing statistics in labour force for many years. This article tends to present the importance of employment-to-population ratio as one of the key indicators comparing to the unemployment rate, labour force participation rate and dependency ratio. Labour Force Survey data from 1982 to 2012 is used to gain a detailed understanding of EPR in Malaysia. The survey was used because it provides time series statistics on the labour force, unemployment and the structure of employment at national level. The findings from this article conclude that the ratio is used to evaluate the ability of the economy in the long-run economic performance. Therefore, it is used in conjunction with the employment rate; unemployment rate; the labour force participation rate, evaluates the magnitude of employment growth; identifying gender issues in labour market activity and closely connected to dependency ratio.

Keywords: Employment-to-population ratio (EPR)

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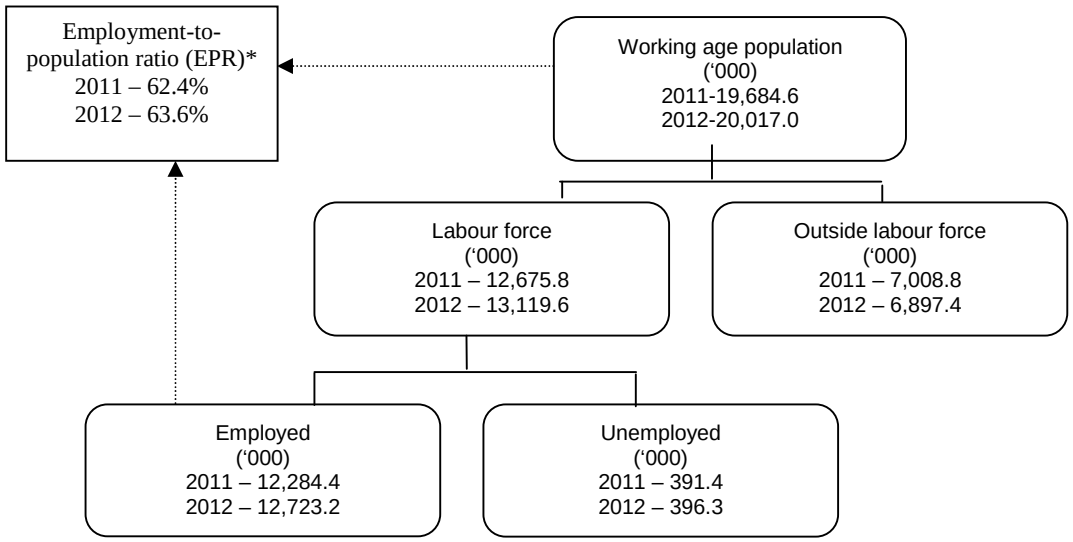
1. INTRODUCTION

Key Indicators of labour market released by Department of Statistics, Malaysia (DOSM) as in Monthly Principal Statistics of Labour Force, Malaysia are among those indicators that are published on a regular basis for researchers and policy makers to evaluate economic performance. Key indicators include employed, unemployed, labour force participation rate, unemployment rate and outside labour force. The unemployment and labour force participation rate has long been the labour market indicators.

Chart 1: Principal Statistics, Labour Force Survey (LFS), 2011-2012



* EPR is calculated by author

However, employment-to-population ratio rarely gets much attention from National Statistics Office. In other country such as Singapore, based on the portal of Department of Statistics, Singapore, EPR was not one of the variables published. As for DOSM, EPR was published since 2014 (Labour Force Survey Report, 2013). From Chart 1, DOSM calculates principal statistics inclusive of working age population, labour force, outside labour force, employed and unemployed. Information on employed and working age population will give enough information to calculate EPR in Malaysia.

Virtually every country in the world that collects information on labour market status should, theoretically, has the requisite information to calculate employment-to-population ratios, specifically, data on the working-age population and total employment (International Labour Organisation (ILO), Key Indicator of Labour Market (KILM)).Both components, however, are not always published or it is not always possible to obtain the age breakdown of a population, in which the data are provided for employment only with no accompanying ratio (ILO, KILM). Providing more detailed data will ensure that policy-makers and researchers can measure the economic performance more accurate particularly in relation to labour market condition in Malaysia. The economic crisis is just one of the reasons for strengthening labour market information (MDG, ILO, 2009). There is a need in most

countries to strengthen employment information which can inform national development plans and priorities. By establishing a set of indicators on the labour market and monitoring them regularly, evidence-based policy decision making can be strengthened (MDG, ILO, 2009).

The main purpose of this paper is to identify the important of EPR by comparing with unemployment rate, labour force participation rate and employment growth. In addition, two issues can be observed which are the improvement of female EPR and the relationship between EPR and the dependency ratio (DPR).

2. LITERATURE REVIEW

ILO has stated the importance of EPR in the Key Indicators of the Labour Market (KILM). The employment-to-population ratio is defined as the proportion of a country's working-age population that is employed (KILM, ILO). A high ratio means that a large proportion of a country's population is employed, while a low ratio means that a large share of the population is not involved directly in market-related activities, because they are either unemployed or (more likely) out of the labour force altogether.

ILO has also made an initiative to highlight key labour indicators specifically on EPR in the report, *"Guide to the new Millennium Development Goals Employment Indicators".* As a guide, ILO summarises some general "rules" relating to the EPR trends.

i) Ratios should be lower for youth than for the overall population (15 years and over) as more young people (as a share of their age group) participate in education in comparison with adults;

ii) Ratios for women may be lower than those for men as a result of women voluntarily staying at home and not participating in labour markets. However, if the difference is the result of involuntarily low labour force participation for women, efforts should be made to increase the ratios for females over time by promoting employment opportunities for women;

iii) Employment-to-population ratios should neither be too low nor too high, ratios above 80 per cent, for instance, often occur in very poor countries and usually indicate an abundance of low quality jobs; and

iv) Increases in employment-to-population ratios should be moderate as sharp increases could be the result of decreases in productivity.

ILO also adopted EPR in the view of gender issues in "Global Employment Trends for Women 2012". This report mentioned that the employment-to-population ratio, between 2002 and 2007 inched down, but remained high at 24.6 points. The reduction in the gap from 2002 to 2007 was particularly strong in Latin America and the Caribbean, the advanced economies, Africa and the Middle East. The pre-crisis gap increased significantly in only one region, Central and Eastern Europe. This pre-crisis reduction of the gender gap in the employment-to-population ratio was

based on historically higher employment growth rates for women of 1.8 per cent, compared to men at 1.6 per cent, from a low base for women. Again this held for all regions. However, the period of the crisis saw a reversal in the historically higher employment growth rates for women, lowering them below those for men by 0.1 percentage points, and with no projected return to the earlier trend even by 2017. This reversal in employment growth rates during the period of the crisis, in turn, reversed the weak trend toward convergence in employment-to-population ratios that had been in place. Three regions increased their gender gaps in employment-to-population ratios, South Asia, Central and Eastern Europe, the Middle East and marginally East Asia.

Apart from ILO, Robert A. Moffit from Johns Hopkins Universities look into the "Reversal of the Employment-To-Population Ratio in the 2000s: Facts and Explanations" with concern on the decline in the employment-to-population ratios for men and women over 2000–07, just before the Great Recession, represents a historic turnaround in U.S. employment trends. Furthermore, Robert Moffit (2012) estimated a model of the determinants of the ratio as a function of wage rates, non-labour income, and demographic factors. This note uses that estimated model to predict what the employment-population ratio would have been in 2011 if the structure of the labour supply function had remained what it was in 2007 but wage rates, non labor income, and demographic variables had taken on their 2011 values. The predictions show that the employment-to-population ratios of men and women would have returned to their 2007 levels. This suggests that the employment-population ratio may indeed fully recover from their Great Recession declines.

3. RESEARCH METHODS

Study on employment-to-population ratios used secondary data from Labour Force Survey (LFS), conducted by DOSM from 1982 to 2013. The main objective of LFS is to collect information related to the structure and characteristic of labour force, employment and unemployment. Besides providing estimates at national and state level (16 states), this survey also provides useful aggregated data by urban and rural areas. The LFS covers both urban and rural areas of all states in Malaysia. The survey comprises the economically active and inactive population with the age limit of 15 to 64 years. The economically active population are those employed and unemployed whereas those who are inactive are classified as outside labour force.

Employed persons and working age population are two information extracted from the LFS. The calculation of the EPR is the ratio of employed persons to the working age population (15 to 64 years). The EPR typically falls between 50 and 75 per cent with a higher share indicating that a greater proportion of the population that could be working does work. A low ratio indicates that a large share of the population is not involved directly in market-related activities. In many countries, the ratio is lower for females than for males (MDG, ILO, 2009). The definition of employed persons and working age (ILO) refer to the definition used by ILO.

It was decided that the best method to adopt for this study was to look into correlation and trend analysis which are:

i) Trend on employment-to-population ratio (Line graph);

ii) Pearson r correlation to measure the relationship between Employment-to-population ratio (EPR) and Unemployment Rate (UR);

iii) Pearson r correlation to measure the relationship between Employment-to-population ratio (EPR) and Labour Force Participation Rate (LFPR);

iv) Trend of employment-to-population ratio by states (Line graph); and

v) Trend of employment-to-population ratio and dependency ratio (Line graph).

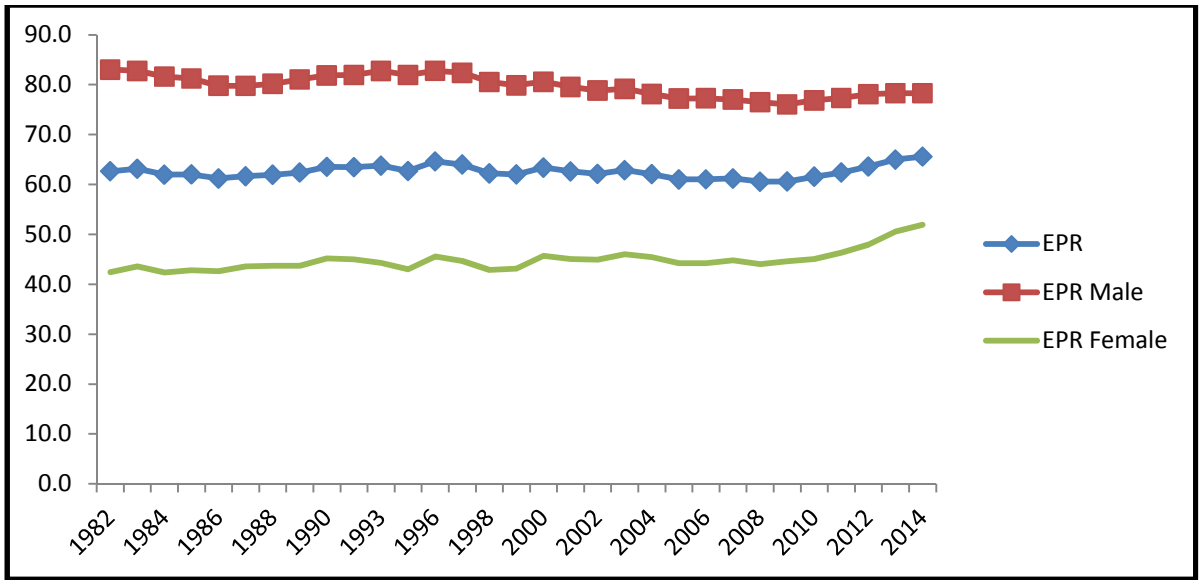
4. THE FINDINGS

The current findings added the understanding of employment-to-population ratio. The derived values of EPR from LFS are then used to highlight the importance of EPR as the key indicators of labour market in Malaysia.

4.1 Trend on employment-to-population ratio

This study indicates that the EPR for male is higher than female and total EPR. It also indicates that EPR for female is lower than total EPR and beginning in 2009, EPR for female consistently increase from 44.6 per cent to 51.9 per cent in 2014.

Chart 2: Employment-to-population ratio, by sex, 1982-2014

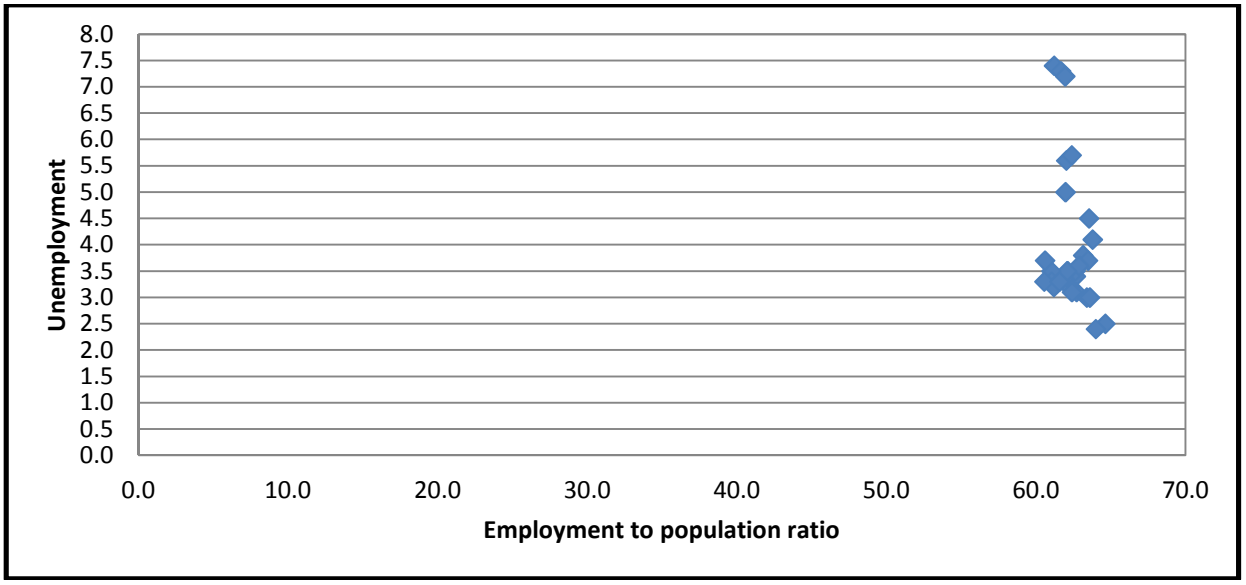


Source: LFS time series data, Department of Statistics, Malaysia

4.2 Correlation between Employment-to-population ratio (EPR) and Unemployment rate (UR).

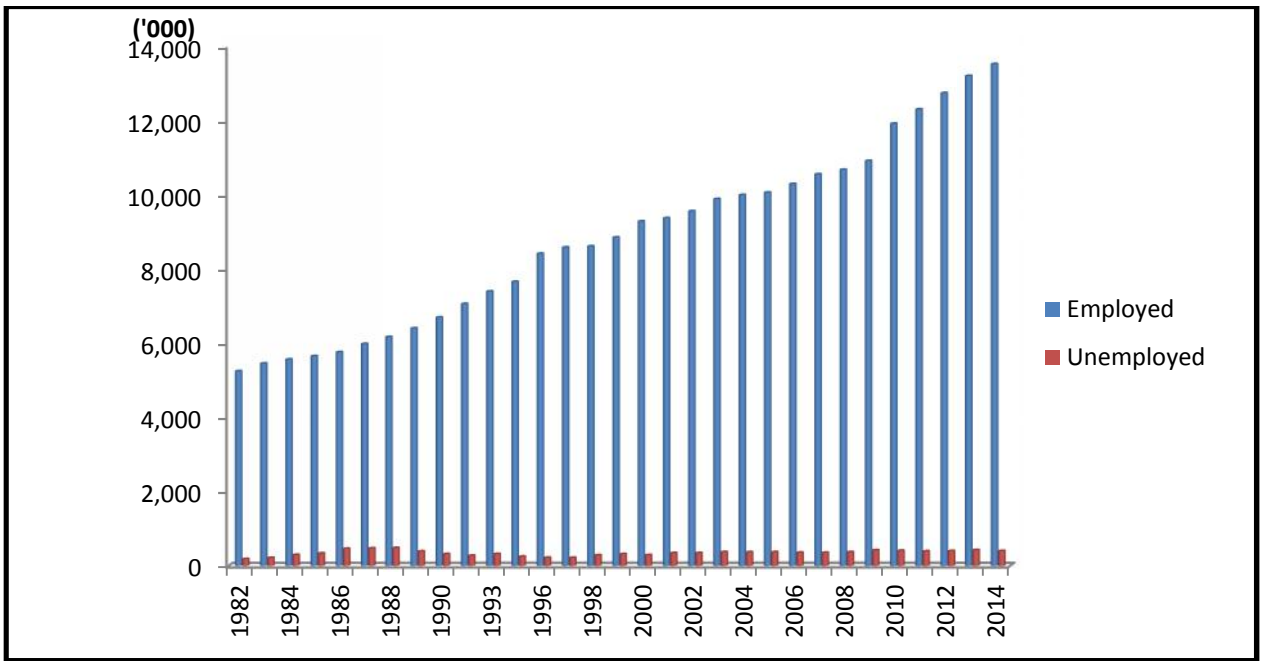
The findings also suggest a negative correlation between UR and EPR with value of r= -0.378. The finding provides evidence that UR will increase if the EPR decrease.

Chart 3: Correlation between Employment-to-population ratio (EPR) and Unemployment rate (UR)



Source: Times Series Data, Department of Statistics, Malaysia. In 1994, DOSM did not conduct LFS.

Chart 4: Number of employed and unemployed persons (1982-2014)

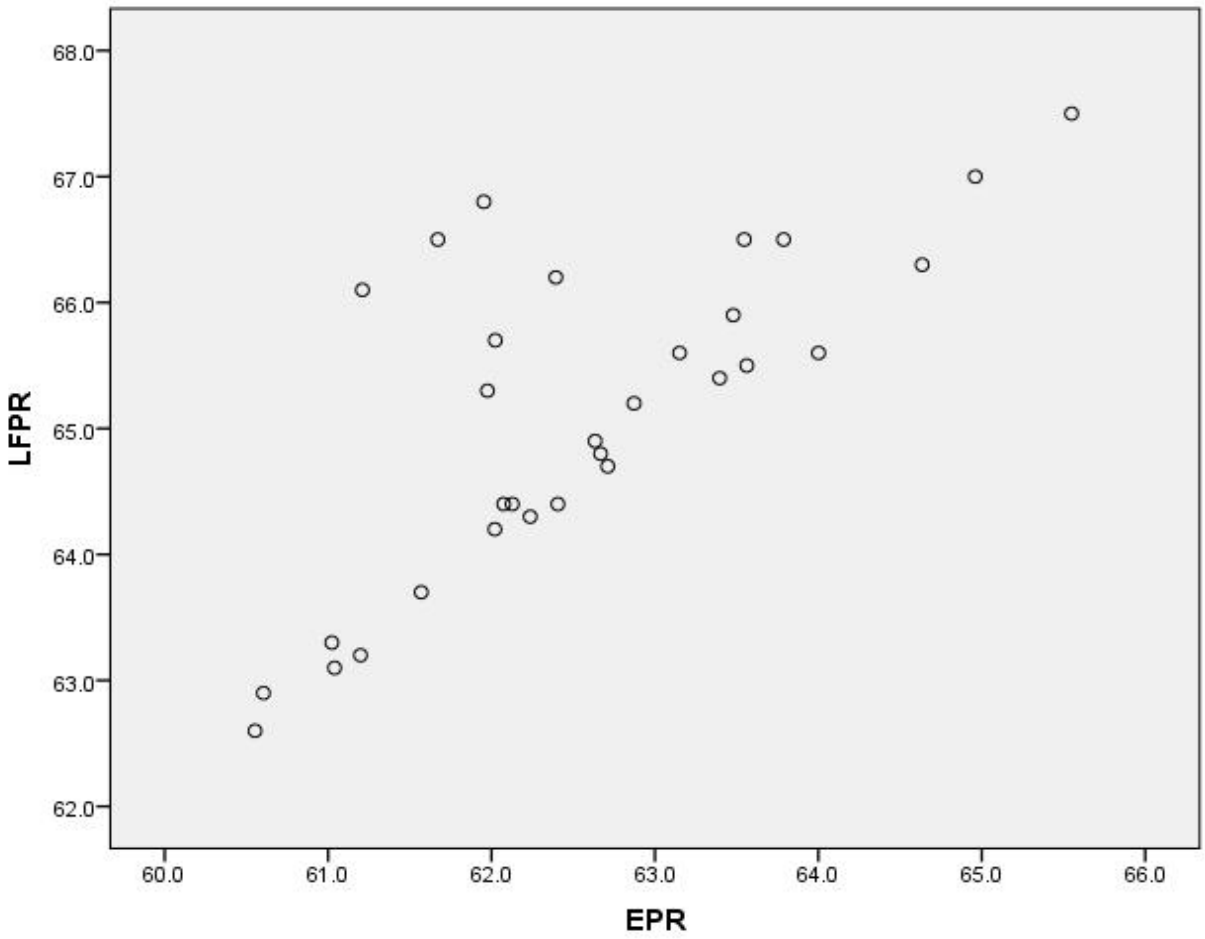


Source: Times Series Data, Department of Statistics Malaysia. In 1994, DOSM did not conduct LFS.

4.3 Correlation between Employment-to-population ratio (EPR) and Labour force participation rate (LFPR).

A scatter diagram was used to view the relationship between EPR and LFPR (Chart 5). Our finding revealed positive relationship between EPR and LFPR (r=0.640), increased EPR caused LFPR to increase or increasing in labour force will increase employed persons in the country.

Chart 5: Correlation between Employment-to-population ratio (EPR) and Labour force participation rate (LFPR)



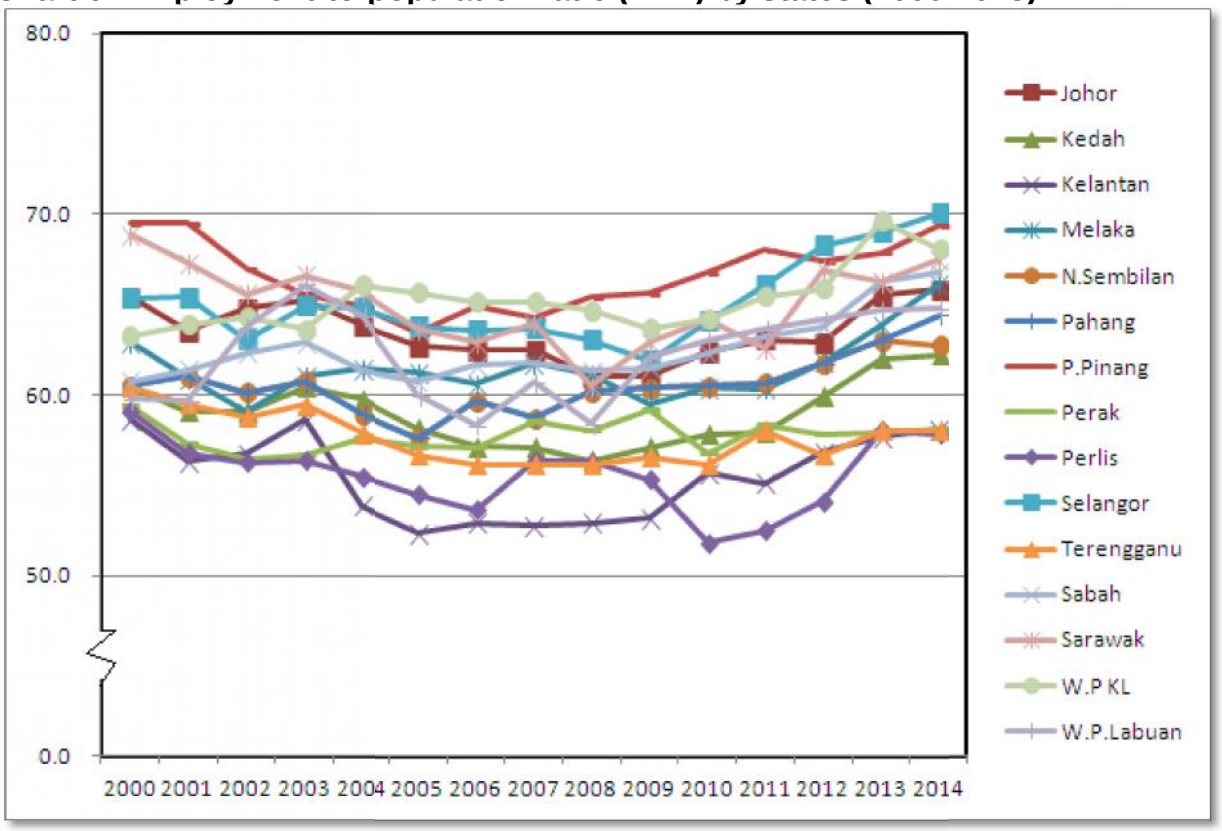
Source: Times Series Data, Department of Statistics Malaysia. In 1994, DOSM did not conduct LFS.

4.4 Trend of employment-to-population ratio by states

EPR could be used to compare employment growth among all the states[2] of Malaysia. For the period of 2000 till 2013, Pulau Pinang, WPKL and Selangor recorded the higher ratio. The lower ratio was stated by Kelantan and Perlis.

[2]Each state in Malaysia used common Labour Force Survey (LFS) done by DOSM, can bring unity for comparability.

Chart 6: Employment-to-population ratio (EPR) by states (2000-2013)

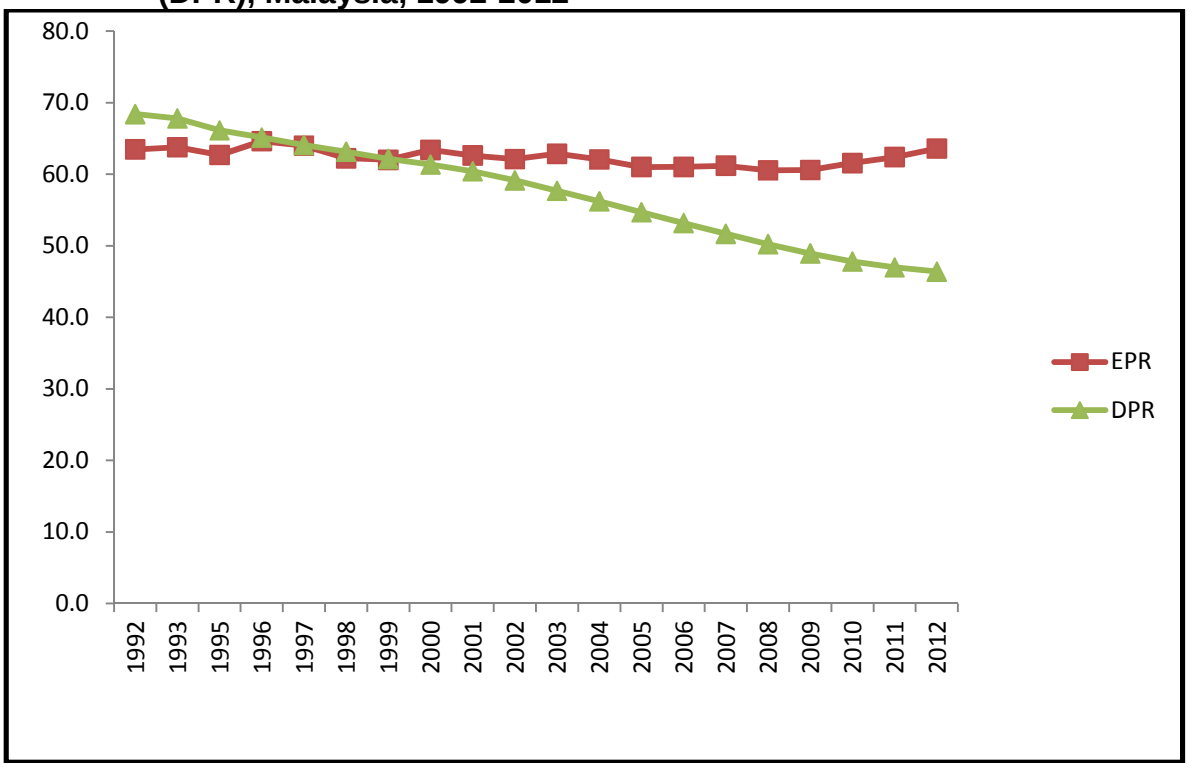


Source: Times Series Data, Department of Statistics Malaysia. In 1994, DOSM did not conduct LFS.

4.5 Trend of employment-to-population ratio and dependency ratio

It is apparent from Chart 7 that before 1996, EPR is lower than DPR, but when the economic down turn began in 1997 (Jomo KS, Wee Chong Hui (2009)), the EPR is approaching DPR. Since 2000, the EPR was higher than DPR and the gap increased until 2012.

Chart 7: Trend Employment-to-population ratio (EPR) and Dependency ratio (DPR), Malaysia, 1992-2012



Source: Department of Statistics, Malaysia

5. DISCUSSION AND CONCLUSION

What is interesting in this result is that although EPR for female was not as high as male, there is upward trend for female EPR which indicates the government's continuous efforts to create opportunities for women in Malaysia. In Eleventh Malaysia Plan, efforts will be intensified to increase the number of women in decision making positions. In line with this, women will be given greater opportunities to acquire the necessary knowledge and experience including in areas of entrepreneurship (EPU, 11 MP).

There was a negative correlation between UR and EPR. If EPR increase, more persons will be employed and less people without jobs (unemployed and outside labour force). This caused positive effect on the economy but increases in EPR should be moderate as sharp increases could be the result of decreases in productivity, as stated in the literature review. It therefore indicates that these two indicators supplement each other inversely about the situation of the labour market in the economy**.**

There was a positive correlation between LFPR and EPR. This shows that EPR can be used to estimate the LFPR. However, this result need to be interpreted with caution due to LFPR include employed and unemployed persons mean while EPR give information only on employed persons. In certain year, increasing LFPR will not give positive sign to EPR. According 10 MP, female LFPR is targeted at 55 per cent in 2015.

The study also suggested that EPR being used for comparison with DPR which indicates the degree to which the entire population depends on those actively engaged in production (employed persons). This finding highlight that the range between the EPR and the DPR is widening suggested more people are working and this will be a good indicator for the economy.

6. CONCLUSION

The relationship between (either positively or inversely correlated) EPR, UR, LFPR and dependency ratio yields a single indicator that could be used to interpret the other three (3) indicators ie UR, LFPR and dependency ratio. Therefore it provides not only a large input to researchers to further study the labour market indicators but also provides a basis for labour market comparisons across countries or groups of countries.

Important indicator such as EPR is able to shed some light on various issues related to labour market such as gender and decent work. Increasing in EPR for females indicates that government in the Tenth Malaysia Plan (MP) gave significant attention on female workers in Malaysia. The decent work agenda as part of gender issues has well been articulated by the Ministry of Human Resources (MOHR) under its deliverable within the national developmental policies. The report is stated in Regional Workshop on Monitoring and Assessing Progress on Decent Work in Asia, 28-30 June 2010 in Bangkok.

Since EPR include only employed persons, it gives a clearer picture related to economic situation as compared to LFPR which include 2 factors (employed and unemployed persons). Therefore, EPR will give more accurate information on employment in Malaysia especially when EPR is detailed into industries and education.

7. ACKNOWLEDGEMENT

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