

AN ANALYSIS ON LABOUR DEMAND IN MALAYSIA

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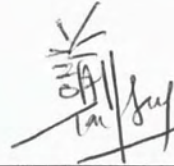
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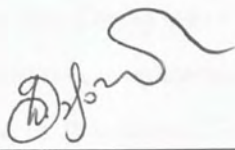
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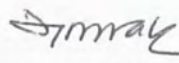
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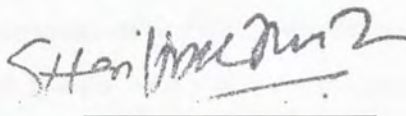


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ABSTRACT

Labour demand is an essential aspects in analyzing labour market. This dissertation is aimed to illustrate the distribution of the labour demand in Malaysia from 1980 to 2005 and investigate the relationship between labour demand and several macroeconomics factors such as economic growth and exports growth. The demand of labour is defined as total of employment for this study. The secondary time series data from 1980 to 2005 are collected from Department of Statistics and World Investment Report. Test on assumption of regression model, such as the Jarque –Bera Normality test is conducted to examined the existence of normality in residuals. Unit root test and Cointegration Engle-Granger test are employed to determine the order of integration for the series and investigate the long-run relationship between labour demand and the series of economics growth and exports by the latter. On the other hand, the Granger causality test is applied to determine the direction of causality between employment and the explanatory variables. The empirical results indicated that there are long-term relationship between them. There is no evidence to prove that economics growth and exports Granger-cause employment. This study also shows that employment posses unilateral causal relationship to economics growth and exports.



ANALISIS TERHADAP PERMINTAAN TENAGA BURUH DI MALAYSIA

ABSTRAK

Permintaan tenaga buruh merupakan suatu aspek yang penting untuk dipertimbangkan semasa menjalankan sesuatu kajian terhadap pasaran tenaga buruh. Tujuan disertasi ini dijalankan adalah untuk memaparkan taburan permintaan tenaga buruh di Malaysia daripada tahun 1980 hingga 2005 dan menganalisis hubungan antara permintaan tenaga buruh dengan faktor-faktor makroekonomi yakni pertumbuhan ekonomi, pertumbuhan eksports dan *foreign direct investment inflow*. Dalam kajian ini, permintaan tenaga buruh didefinisikan sebagai jumlah tenaga buruh. Data-data sekunder berkenaan diperolehi daripada Jabatan Perangkaan Negeri Sabah dan *World Investment Report*. Sebelum menjalankan ujian hipotesis, model regresi diuji sama ada memenuhi andaian-andaian yang ditetapkan. Ujian *Jarque-Bera* digunakan untuk menentukan kenormalan residual. Ujian punca unit dijalankan untuk menguji kepegungan data siri masa dan menentukan peringkat kointegrasi. Manakala kaedah-kaedah seperti *Cointegration Engle-Granger test* dan *Granger causality test* diaplikasikan untuk menentukan hubungan jangka masa panjang antara permintaan tenaga buruh dengan pembolehubah-pembolehubah yang dikehendaki dalam analisis ini. Daripada keputusan kajian yang dijalankan, terdapat hubungan jangka masa panjang antara tenaga buruh dengan pertumbuhan ekonomi dan eksports. Selain itu, juga terbukti bahawa pertumbuhan ekonomi dan eksport bukan penyebab berarah terhadap permintaan tenaga buruh. Manakala hubungan arah penyebab sehala pula wujud antara permintaan dengan pertumbuhan ekonomi dan eksport secara langsung.



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LIST OF ABBREVIATIONS

GDP	Gross Domestic Product
EXP	Exports
FDI	Foreign Direct Investment
R&D	Research and Development
OECD	Organization for Economic Co-Operation and Development
RM	Ringgit Malaysia
OLS	Ordinary Least Square
d.f.	degree of freedom
eq.	Equation



CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

In economics, labour is one of the factors of production which consists of human effort expended to acquire income. In term of factor, labour usually refers only to the hired workers, but not to capitalists or entrepreneurs (Ammer, 1977). According to Dictionary of Economics, labour not only includes the numbers of people available for, or engaged in the production of goods or services, it is also used to mean for their physical and intellectual skills and effort.

Labour market is just similar to any others, in that it is a function of the forces of both demand and supply. Labour market is the market in which wages, salaries and conditions of employment are determined in the context of the supply of labour and the demand of labour (Bannock *et al.*, 2004). The supply side of labour market relates to individuals and how they supply their labour while the demand side is to show how firms



are prepared to package available work for producing their outputs. The supply and demand sides meet at the point where someone fills a post. This is their job, for which they receive a wage.

The demand of labour is the amount of labour that firms will employ at different wage levels. Firms employ labour as long as it is profitable where the selling price of the output of the marginal worker is greater than the cost of the worker. In order to maximize profits, firms will hire additional workers until the marginal revenue product is equal to the wage costs, where marginal revenue product is the additional revenue of the firm's output multiplies the number of extra units produced by taking on one more worker (Bannock *et al*, 2004).

Labour demand is a derived demand, which means the demand of labour is derived on the decision to supply goods or services in another market. The demand of labour interacts closely with the economy. When the economy is stimulated and consumer demand is rising, output rises to fulfill the demand and this will lead to the rise of the demand of labour in order to meet the increasing output requirement.

There are two important relationships with labour demand in economics which are with output growth and wages growth. For the relationship with output growth, the demand for labour rises when the prices of the firm's output and the physical output of workers which in the sense of skills or harder works rises. For wages growth, when the wage rate falls, the demand for labour rises. Higher wages imply higher costs and usually



higher product prices. Consumers respond to higher prices by buying less, and this will cut down productions and reduce employment. Besides that, employers have incentives to cut costs by adopting technology that relies more on capital and less on labour. The demand of labour falls due to a more capital-intensive mode of production. On the other hand, when the amount of capital employed increases, the demand for labour rises as the capital enhances the productivity of each worker.

1.2 AN REVIEW ON LABOUR DEMAND IN MALAYSIA

Employment in Malaysia can be divided according to industrial sectors which are mainly group into primary, secondary and tertiary. Agriculture, forestry, hunting and fishing sector and mining and quarrying sector are categorized as primary while manufacturing sector and construction sector are in secondary. For tertiary, there are electricity, gas and water supply, wholesales, retail trade, hotels and restaurants, transport, storage and communication and services.

Changes in the economic and demographic structure will have a strong effect on the labour market. Basically, the change in labour supply is affected by demographic indicators while change in labour demand is due to economics factors. So, to investigate the demand of labour in the market of Malaysia, we would first view the economics growth.



Malaysia economics structure is experiencing substantial changes over the last two decades. One of the most distinct changes can be seen in the declining importance of the agricultural sector and in contrast, the increasing importance of the manufacturing and services sectors. The economic development of Malaysia was in line with structural change theories, which implied a decline in agriculture's share of the gross national product (GNP) and a corresponding increase in the share of manufacturing activities. In 1975, the contribution of agriculture sector in GDP was 24.5% and the percentage of manufacturing was 15.3%. However, by 2005, the share of agriculture in GDP had shrunk to 8.2% while manufacturing sector had risen to 31.6%. Manufacturing value added in 2005 was more than 3 times larger than that of the agriculture sector. Throughout the period, the service sector has been the main contributor to GDP, accounting for almost 60% by 2005.

This dramatic transformation of economic brings the same changes in the structure labour market. The dramatic change is the labour shift from agricultural to manufacturing and services sector. Agriculture declined from over 35% of total employment in 1980 to only 26% in 1990 and below 20% at the end of the century. In the end of 2004, there is less than 15% of contribution to the total of employment. By contrast, the share of employment in manufacturing increased from 16.1% in 1980 to more than 20 % in 2004 (Table 1.1). (United Nations Development Programme, 2006)



Table 1.1 Percentage distribution of employment by sector in Malaysia from 1980 to 2004.

Sector	Percentage Distribution by Sector(%)			
	1980	1990	2000	2004
Agriculture, forestry, hunting and fishing	37.2	26.0	18.4	14.8
Mining and quarrying	1.0	19.9	0.3	0.3
Manufacturing	16.1	19.9	22.8	20.3
Construction	5.7	6.3	8.6	8.9
Electricity, gas and water supply	1.4	0.7	0.5	0.6
Wholesale, retail trade, hotels and restaurants	14.5	18.2	19.2	23.1
Transport, storage and communication	4.4	4.5	4.5	5.3
Services	19.8	23.7	25.7	26.7
Total employed (000s)	4,787.6	6,685	9,321.7	9,986.4

Source: Department of Statistics, Malaysia

Malaysian economic development has depended historically on the exploitation of land and minerals. Agriculture made an important contribution to the Malaysian economy during the 1960s and early 1970s. Until the mid 1970s, Malaysia was among the largest exporters of natural rubber, tin and palm oil. From the mid 1980s onward, the importance of the land and minerals sector as the main contributor to Gross Domestic Product (GDP) dwindled and employment shifted to the manufacturing sector. Growth in manufacturing



sector has also been linked to the strong growth in other modern sectors of employment, such as business and financial services. (United Nation Development Programme, 2006)

Labour demand was based in investment opportunity that includes government expenditure in those particular areas. Because manufacturing is seen as the engine of growth to spearhead the restructuring of economic activity and society, the government introduced a regional policy of 'industrial dispersal' mainly to decrease regional inequality by promoting industrial activities in the less developed states. However, within the manufacturing sector, economic growth will be greater in regions with a high inflow of foreign direct investment (FDI), greater export-oriented products, high productivity and value added per worker. All these factors will determine the structure of labour demand.

Trade liberalization is one of the contributions to the demand of labour. In many of the developing countries, trade reduces the level of poverty. By increasing the exports, jobs created and employment increased.

1.3 OBJECTIVES OF RESEARCH

The objective to carry out this study is to illustrate the distribution of labour demand in Malaysia. Besides that, we are here to analyze the relationship between the demand of labour with several macroeconomics determinants that predict would have affect on it, those are the economics growth, exports and foreign direct investment inflow.



1.4 SCOPE OF RESEARCH

The scope of this study includes the total employment by all the sectors from 1980 to 2005 in Malaysia. Besides that, the annual data of gross domestic product, exports and foreign direct investment inflows of the country during the same period of time as stated above are studied in this research. The causal relationship among those variables is interested in this research. Augmented Dickey-Fuller test for unit root test, cointegrating Engle-Granger test and Granger causality tests are employed.



CHAPTER 2

LITERATURE REVIEW

2.1 LITERATURE REVIEW

A number of studies have carried out to analyze the demand for labour. The determinants of labour demand vary from model to model and from country to country. Recent contributions in dynamics analysis of labour demand suggest that firm's output expectations, factor prices, the level of fixed factors and technical progress are determinants to employment which were conducted by Flaig and Steiner (1989) and Hazledine(1981).

An empirical evidence aimed at investigating the determinants of labour demand in Greece had been carried out by Chletsos (2005) by taking into account both economics and sosio-economic determinants. The explanatory variables that were chosen to determine the employment are unemployment benefit, the change in unemployment rate,



growth rate and the change of the ratio imports to exports which indicated the openness of a country's economy.

The empirical findings showed that in long run period there was a significant positive relationship between the growth rate and change in employment ratio and a significant negative relationship between the openness of economy. It can be concluded that as economic growth rate increases, more jobs created and labour demand increases. Although the negative relationship between the change in employment ratio and unemployment benefits and a positive relationship between unemployment and employment ratio were not significant, in short run period, these variables were being remarked significantly related to the change of employment ratio.

Growth rate is concerned as one of the determinants of labour demand. Salter (1960) found that there had a positive relationship existed between growth rate and employment. In the study of the relationship between wages, productivity and labour demand in Greece by using an error correction approach, Chletsos, Kollias and Manolas (2000) found that growth rate had a positive impact on employment level.

Higher economic growth rate increased the employment growth rate. When the economic growth rate was low, labour demand went down. Thus, an increase in the economic growth rate resulted in employment growth only after some threshold economic growth rate was exceeded.



However there were no guarantees that high economic growth would induce higher employment growth rate. Countries with high labour costs achieved a higher economic growth rate by investment in assets to replace labour which would increase labour productivity growth rate and a simultaneous drop in labour demand growth rate. At a given GDP growth rate a high labour productivity growth rate meant a lower labour demand growth rate.

High labour productivity growth, which exceeds the growth of production costs and in particular of labour costs increase the competitiveness of the economy. When competitiveness is rising, foreign and domestic demand for domestic goods and services is on the increase as well. Thus, GDP rises as well, which leads to an increase in labour demand. Growing competitiveness attracts more foreign capital, which is conducive to boosting production capacity, which in turn means job creation (Czyzewski, 2002).

There is a wide divergence of views concerning the effect of foreign direct investment on domestic employment. Much of the foreign direct investment are induced by the growing competitiveness of foreign producers, thus domestic jobs would be lost. However, most economists viewed that no firm conclusion is warranted about the net employment effects of foreign direct investment. Broad generalizations are difficult because of the different employment effects one obtains from various plausible alternative assumptions about the consequences in the absence of foreign investment and the magnitude of increased imports by the host country from the investing country will be.



Glickman and Woodward (1989) concluded that there was a net average annual loss of United States jobs. The gain in employment due to increased exports of intermediate goods to foreign subsidiaries as a consequence of foreign investment was estimated. They estimated that the employment impact of foreign direct investment in the United States.

The role of foreign direct investment in job creation and job preservation as well as their role in changing the structure of employment in Czech Republic, Hungary, Slovakia and Estonia are examined in the working paper conducted by Mickiewicz, Radosevic and Varblane . The paper stated the increasing differences in the distribution of foreign direct investment are closely related to the FDI inflows per capita. The policy-makers in the countries of central Europe highly expected that foreign investors will bring new technology and capital to accelerate structural changes and also maintain employment. FDI is important not only as generator of new employment but also as agent that can change the structure of employment.

From that paper, it was showed that in Hungary, FDI operated successfully in employment generation as the overall employment has improved. The foreign controlled employment in this country contributed partially to the overall improvement in employment. FDI can lead growth in the manufacturing employment and this conclusion restricted on FDI as employment generators. Structure of FDI has effects on employment in economy.



The paper entitled “Openness, technological change and labor demand in pre-crisis Indonesia” examined the impact of export orientation, import competition, foreign ownership and the rate of capital accumulation on the demand for labour in pre-crisis Indonesia. It was estimated that openness and foreign ownership acted to raise the relative demand for unskilled workers while the newness of capital increased demand for skilled workers. The trends in employment and wages of labour in manufacturing sector and the effect on them of openness and technological change were analysed. The greater openness facilitated accelerated capital accumulation in manufacturing and increased foreign participation. As a result, the employment of skilled labor increased due to the skill-using technologies embodied in the new capital tended to offset the increasing employment of unskilled labour. (Suryahadi *et al.*, 2001)

Malaysia shares a different set of similar characteristics of labour market with other South-East Asian Countries particularly Indonesia, Thailand and the Philippines. In Malaysia and the Philippines, the growth of employment in manufacturing was associated with the openness of the economic to trade. Robbins (1996) concluded that the effect of openness in the absence of supply shifts would have raised the relative demand for skilled labor and therefore its relative wage mainly due to higher imports of skill-using machinery. FDI is attributable to policy reform and trade liberalization and thus to greater openness. Such capital inflow increases the demand for skilled workers relative to unskilled workers and causes the wages of skilled workers to rise. (Feenstra and Hanson, 1996).



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