FEMALE LABOUR FORCE PARTICIPATION AND ECONOMIC GROWTH IN SELECTED ASEAN COUNTRIES

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FACULTY OF BUSINESS, ECONOMICS AND ACCOUNTANCY
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ABSTRACT

ASEAN countries have experienced rapid economic growth through structural shifts in the economy and an increase in educational attainment levels in the last 20 years. The literature shows that the female labour force plays a significant role in the economic development of nations. The purpose of this study investigates the nexus between female labour force participation, Gross Domestic Product (GDP) per capita, total fertility rate, urban population, male unemployment and female education. This research uses secondary data from the World Development Indicators (2017) from 1990 to 2016 to study seven selected ASEAN countries namely Brunei Darussalam, Indonesia, Vietnam, the Philippines, Thailand, Malaysia and Singapore. This research presents three models with different objectives. Model 1 is to examine the relationship between female labour force participation and fertility rates in seven selected ASEAN counties. Model 2 is to examine the relationship between female education at a secondary school and the rate of female participation in the labour force through control variables such as GDP per capita, total fertility rate, urban population and male unemployment. Model 3 is to examine the existence of a nonlinear U-shape relationship between female labour force participation and economic growth in seven selected ASEAN countries. The Ordinary Least Square (OLS) and Threshold Regression are used to analyse the results in this research. Model 2 and 3 implemented semi-logarithm for partial indicators. Model 1 showed a relationship between female labour force participation and total fertility rate, whereby a 1 unit increase in TFR, will result in a decrease of FLFP by 18.27 per cent. This indicates that the increase in fertility will decrease the participation rate of females in the labour force due to the lack of time for women to join the labour market and at the same time they have to take care of their family's welfare for seven selected ASEAN countries. Model 2's finding shows an increase of 1 per cent in education will cause an increase of 32.05 per cent in FLFP. This shows that an increase in the number of women who have completed their secondary school may contribute to the growth of the economy. Model 3 found that the U-shaped relationship between female labour force participation and GDP per capita. This finding validates the existence of a U-shaped association between female labour force participation and GDP per capita. It is noted that a 1 per cent rise in GDP per capita results in a 6.25 per cent decline in female labour force participation as shown by the estimation of the linear term. The positive sign of non-linear (squared) term of GDP per capita indicates that a 1 per cent rise in GDP per capita (squared) results in a 3.7 per cent increase in female labour force participation. This means that for the seven selected ASEAN countries for the past 27 years, it supports the existence of a nonlinear U-shaped hypothesis. In conclusion, national development is dependent on all of the above sectors. Based on this research, it is recommended that the equality of men and women should be implemented consistently in these countries, as falling fertility rates would lead to a lack of human capital and an ageing population in the future.

ABSTRAK

PENYERTAAN TENAGA BURUH WANITA DAN PERKEMBANGAN EKONOMI DI NEGARA ASEAN YANG TERPILIH

Negara ASEAN mengalami peningkatan ekonomi melalui perubahan garis ekonomi dan peningkatan pelajaran dalam 20 tahun terkini. Literatur membuktikan bahawa penglibatan pekerja buruh wanita memainkan peranan signifikan dalam pembangunan ekonomi negara. Tujuan kajian ini menyiasat hubungan diantara pekerja buruh wanita, Keluaran Dalam Negara Kasar (KDNK) per kapita, kadar kesuburan, golongan populasi bandar, pengangguran lelaki dan pendidikan wanita. Kajian ini menggunakan data sekunder daripada World Development Indicator (2017) *dari tahun 1990 sehingga 2016 untuk mengkaji tujuh buah negara ASEAN terpilih iaitu Brunei Darussalam, Indonesia, Vietnam, Filipina, Thailand, Malaysia dan Singapura. Kajian ini melibatkan tiga modal dengan objektif yang berbeza. Modal 1 adalah untuk mengkaji hubungan diantara pekerja buruh wanita dan kadar kesuburan untuk tujuh negara ASEAN terpilih. Modal 2 adalah untuk mengkaji hubungan diantara wanita yang telah menghabiskan pendidikan mereka di sekolah menengah and penglibatan pekerja buruh wanita melalui pembolehubah kawalan seperti KDNK per kapita, jumlah kadar kesuburan, golongan populasi bandar dan pengggangguran lelaki. Modal 3 adalah untuk mengkaji kewujudan ketidaklinearan U-shaped diantara pekerja buruh wanita dan perkembangan ekonomi bagi tujuh negara ASEAN terpilih. Kaedah Ordinary Least Square (OLS) dan regresi Threshold digunakan untuk menganalisa keputusan kajian ini. Modal 1 menunjukkan hubungan di antara penglibatan pekerja buruh wanita dan jumlah kadar kesuburan iaitu setiap peningkatan 1 unit dalam TFR akan menyebabkan penurunan 18.27 peratus dalam FLFP. Ini menunjukkan bahawa peningkatan kesuburan akan mengurangkan kadar penyertaan wanita dalam tenaga kerja kerana kekurangan masa untuk wanita menyertai pasaran buruh dan pada masa yang sama mereka perlu menjaga kebajikan keluarga mereka untuk tujuh negara ASEAN terpilih. Penemuan Model 2 menunjukkan peningkatan 1 peratus dalam pendidikan akan menyebabkan peningkatan 32.05 peratus dalam FLFP. Ini menunjukkan bahawa peningkatan bilangan wanita yang telah menamatkan sekolah menengah mereka boleh menyumbang kepada pertumbuhan ekonomi. Model 3 mendapati bahawa hubungan berbentuk-U di antara penyertaan tenaga buruh perempuan dan KDNK per kapita. Temuan ini membuktikan kewujudan hubungan berbentuk-U di antara penyertaan tenaga buruh perempuan dan KDNK per kapita. Adalah diperhatikan bahawa kenaikan 1 peratus dalam KDNK per kapita menyebabkan kemerosotan 6.25 peratus dalam penyertaan tenaga buruh perempuan seperti yang ditunjukkan oleh perkiraan istilah linear. Tanda positif menunjukkan ketidaklinearan (kuasa dua) KDNK per kapita menunjukkan bahawa kenaikan 1 peratus dalam KDNK per kapita (kuadrat) menghasilkan peningkatan 3.7 peratus dalam penyertaan tenaga buruh wanita. Ini bermakna bahawa bagi tujuh negara ASEAN terpilih selama 27 tahun, ia menyokong kewujudan hipotesis berbentuk U tidak linear. Sebagai kesimpulan, pembangunan negara bergantung kepada semua sektor di atas. Berdasarkan kajian ini, disarankan agar kesamarataan wanita dan lelaki patut diterapkan secara konsisten di negara-negara ini, kerana kadar kesuburan yang jatuh akan mengakibatkan kekurangan modal insan dan populasi yang semakin tua di masa depan.*

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LIST OF ABBREVIATIONS

ATUC	ASEAN Trade Union Council
ASEAN	Association of Southeast Asia Nation
ADF	Augmented Dickey-Fuller
MEA	ASEAN Economic Community
CFS	Completed Family Size
ECD	Early Child Development
FLFP	Female Labour Force Participation
GMM	Generalized Method of Moments
GFR	Generational Fertility Rate
GDP	Gross Domestics Product
KPSS	Kwiatkowski Phillips Schmidt Shin
LFPR	Labour Force Participation Rate
OLS	Ordinary Least Square
OECD	Organisation for Economic Co-operation and Development
PP	Philips and Perron
TFR	Total Fertility Rate
VAR	Vector Autoregression
VECM	Vector Error Correction Models
WDI	World Development Indicator

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CHAPTER 1

INTRODUCTION

1.1. Economic Background

Sinha (1967) was the first economist to suggest the existence of U-shaped curve profile based on two variables, namely, female labour force participation and economic growth. The U-shaped female participation curve is a popular hypothesis, which shows the trend of female labour force participation. According to Verick (2014), the U-shaped curve identifies the nexus of the rate of labour force participation (female) with economic development. The definition of economic development here is structural shifts in economic activity and changes to household labour supply and attitudes about women working outside the home. This hypothesis suggests that female labour force participation rates are the highest in poor countries. Women are involved in subsistence activities and categorised in the middle-income countries because of the transition of their (mainly) male counterparts in the job industry. improvements in education levels results in a decline in fertility rates, which allows more females to participate in the labour market, which creates the increasing demand in the services sector. This trend is represented as a stylised fact. However, it is not confirmed by different data sets and the econometrics methodologies.

Changes in female labour force participation (FLFP) are influenced by academic and social attention in developed and developing countries. Kaushik and Kanbur (2009) suggested that women can improve their life quality as well as socioeconomic position in the real world by participating individually in the labour market. The U-shaped hypothesis was introduced to explain the curvilinear relationship and trend between labour force participation for female and economic growth (Pampel and Tanaka, 1986).

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According to Beneria (2003) and Makwavarara (2005), labour force participation refers to any paid activities. People as a population in a country can be a group of candidates participating in the labour market, such as employers, employed workers or active job seekers. Self-employment (sole proprietorship, partnership or enterprise) is included if this group produces marketable products or services (Gaddis and Klasen, 2012).

The rate of labour force participation can be defined as the percentage of the active population aged 15 and above, that may supply the labour force for the production of goods and services during a specified period. The total labour force constitutes of people aged 15 and above, which is parallel to the International Labour Organisation (ILO) definition of the economically active population. This includes both the employed and unemployed rates. The rate of female as shown in the percentage for the labour force participation which is represented as active women participating in the labour market (World Development Indicators, 2008). Female Labour Force Participation Rate shows the percentage on women who may work and has the availability for jobs and searching for employment (Tansel, 2002).

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A 50% rate for FLFPR points to the half of the female population who are engaged in paid activities, whether as a worker or searching for the job, while the remaining half who are not available for work. However, the 50% rate does not mean that half of the individuals are always in the labour market, while the remainder are not, as indicated by Mincer (1962). It refers to those similar candidates who are often opting in and out (in sometimes) of the labour market. It shows the impact it has on perceptions through the labour force participation in terms of probability. In terms of probability, Porath (2001) defined a rate of 50% for female labour force participation shows that each female candidate has half of the opportunity to be in the labour market at one point in a period.

According to Psacharopoulos and Tzannatos (1989) and Argue and Marks (2008), the rate of labour force participation is broadly used for labour markets analysis, because the indicators are the most quantitatively measurable component of labour supply. The differences between labour force participation and labour supply is that the former is mainly concerned with the options for choosing whether to engage or not in the labour market while the latter is concerned with how many total hours of jobs should be included in the labour force (Ehrenberg and Smith, 1997).

1.2. Labour Force Participation for Female in selected ASEAN Countries: A Review of its History and Empirical Studies

Indonesia, Malaysia, the Philippines, Singapore, and Thailand were the original members responsible for creating the Association of Southeast Asia Nations (ASEAN) in Bangkok, in 1967. On January 8, 1984, Brunei Darussalam announced that it was joining the ASEAN countries, followed by Vietnam, on 28 July 1995. The establishment of the ASEAN Countries led to the ASEAN Declaration. The two aims and purposes of the Association are as follows:

1. To accelerate the economic growth, social progress and cultural development in the region through joint endeavours in the spirit of equality and partnership in order to strengthen the foundation for a prosperous and peaceful community of Southeast Asian nations

2. To promote regional peace and stability through abiding respect for justice and the rule of law in the relationship among countries in the region and adherence to the principles of the United Nations Charter. In 1995, the ASEAN Heads of State and Government re-affirmed that "Cooperative peace and shared prosperity shall be the fundamental goals of ASEAN." (Nuclear Treat Initiative, 2017)

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Women in the ASEAN countries have contributed necessarily human capital to the ASEAN economic development. However, there are many restrictions that should be removed to ensure equal female participation in labour force and rightful benefits from the ASEAN economic development. Economic growth for ASEAN countries averages 5 percent annually, and jobs for the population of 622 million are estimated to be worth USD 2.6 trillion dollars annually (ASEAN, 2016).

However, women appear to be losing out on equal opportunities in the regions' economy, as their GDP was only estimated to be 18 percent or half a billion dollars in 2015. For ASEAN countries, the skilled and unskilled employees are not counted as potential economy for female workers and the expectation for economy to pay a price for keeping the women out, as stated by Adrienne Woltersdorf, Director of the FES Office for Regional Cooperation in Asia (ASEAN Secretariat News, 2016).

Foreign investors and international companies are emphasising the need to understand and anticipate the level of women's employment throughout the ASEAN region. Female penetration in the labour market is important for overall economic growth as it affects the prospects of multinational companies investing in various regions, especially emerging South East Asia. As women's participation may be an indicator driving the economy's flow as a whole, as well as an indicator of job prospects. These factors may be game changers when choosing an investment location (Romain, 2015).

Romain (2015) identified the three largest ASEAN economies, Thailand, Indonesia and the Philippines and examined women's role in the labour force. Based on the study, the employment-population ratio showed that the males were more likely to be hired than their females' counterparts in Thailand. However, the existence of employment equality awareness showed the increasing participation of women involved in labour market, and was the indicator of the overall strength of the Thai economy. Therefore, females opting for professional careers has given them a larger role in the labour market environment. The percentage of Thai women in the workforce is higher than the mean for Asian countries.