World Applied Sciences Journal 19 (5): 719-728, 2012
ISSN 1818-4952;

DOI: 10.5829/idosi.wasj.2012.19.05.1114

Gender Wage Differentials and Discrimination in Malaysian Labour Market

[1]Rahmah Ismail and [2]Idris Jajri

[1]Faculty of Economics and Management, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia
[2]Faculty of Economics and Administration, University of Malaya, Kuala Lumpur, Malaysia

Abstract: In Malaysia, females labour force participation rate is very much lower than that of males, even though they are equally educated. It is commonly observed that women are always less preferable by employers because they are perceived to have less skilled and immobile as compared to men. For women who successfully enter the labour market, they often receive lower wages than their male counterparts do, partly due to discriminatory practices. This paper attempts to examine gender wage differentials and labour market discrimination in Malaysia using 4535 working households surveyed in 2007/8 for all sectors in Peninsular Malaysia. They consist of 2759 males and 1776 females. The analysis of this paper consists of two parts. The first part will identify determinants of wage level by gender through estimating separate wage models for both groups and the second part will decompose gender wage differentials into three parts, i.e. that due to differences in individual's characteristics, male advantage and female disadvantage. The last two parts are associated with employers' discriminatory practices in the labour market.

Key words: Gender wage differentials · Discriminatory practice · Labour market

INTRODUCTION

Wage differentials can be analysed from several aspects, such as by occupation, industry, skills, region and gender. Economic theory beginning with Adam Smith suggests that wage differentials will be primarily determined by differences in occupations. Smith's theory states that wages will adjust so that the labour market for that particular occupation will be in equilibrium. He notes that occupations have many different characteristics, some are pleasant and do not require unusual physical activity or long hours, while others require workers to work long hours and doing heavy labour. There is also variation in the preparation for entry into the occupation. Some require long periods of education or training, while others need comparatively lower qualification. Smith suggests that wages will adjust so that each occupation will have enough workers. Thus, unpleasant occupations will be paid higher wages (ceteris paribus, i.e., all other factors being equal) than pleasant occupations. In addition, occupations that may require many years of education will be paid more than those without many requirements or pre-conditions.

A second, more recently developed theory applicable to wage differentials is the human capital theory of Becker [1]. Concisely, Becker's theory states that as people invest in "human capital" through education and by increasing their skills, they would be more valuable. Thus, we normally expect workers with higher levels of education to be more productive and receive higher wages. A competing theory about the value of education is the screening or signalling model. It hypothesises that education does not really teach anything or give people better skills, but it sorts out the most productive workers. It is assumed that since college education is easier for smart people, it costs them less effort and they are more likely to get a degree. Employers are looking for the smartest, most productive workers and those who have passed the screening test of school are the ones they seek. This theory explains why those who graduated from college earn so much more than those who had some college education but did not obtain degrees.

Studies in the past suggested many reasons for wage differentials such as income inequality across industry, changes in the labour demand structure that biased towards unskilled and skill-biased technological change [2-6]. Mincer [7] argues that wage differentials are greatly explained by differences in human capital possession among the different parties. His argument is based on human capital theory that emphasis on the

Corresponding Author: Dr. Rahmah Ismail, Faculty of Economics and Management, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia. Tel: +603-89215366, Fax: +603-89251821.

ability of human capital to generate earnings. As Becker [1] pointed out that there was a positive relationship between human capital and productivity. As wages are paid according to marginal productivity, differences in the productivity, therefore, will lead to wage differentials.

The neoclassical theory or marginal productivity theory is more suitable in explaining wage differentials by gender. This theory explains gender wage differentials emerge because women are perceived to have lower productivity due to lower human capital attainment. They are also involved in less challenging job and overcrowding in certain jobs. Another theory that can explain gender wage differentials is the dual labour market. According to this theory, labour market can be divided into two categories, i.e. the primary labour market, which is more structured and organised and the secondary labour market, which is more unorganised. The majority of women are in the secondary labour market because they are perceived to possess less skill. Barron and Norris [8] suggest that the secondary labour market is by far more suitable for females and consequently referred to as female's labour market with low earning levels as an indicator of secondary status of a job.

Gender wage differentials prevail in the Malaysian labour market, where male workers usually receive comparatively higher wages than their female counterparts do. In 2001, for example, the supervisory and production male workers in the manufacturing sector received a monthly wage of RM846.34 as compared to RM677.18 for females. In 2007, the male executives in the services sector received a monthly wage of RM2, 171.34 as compared to RM1, 789.51 for the female executives [9]. In general, there are several factors contributing to gender wage differentials. They can be classified into four groups; demographic factors including age and ethnicity; human capital variables including education, training and experience; job characteristics such as full-time, part-time, permanent, contract and sectors. Male and female workers may possess similar level of these variables but wage differentials may still prevail because of employers' discrimination. Employers may perceive female workers as less productive, less creative and possess lower leadership value.

This paper attempts to examine the determinants of wage differentials including discrimination by gender in the Malaysian labour market. Differences in wage are normally attributed to differences in the productivity-linked characteristics of human capital attainment. However, there are also other variables that might influence these differences such as demographic factors, job characteristics and sectors, which will be examined in this paper. This paper is organized into seven sections. The next section reviews the literature, while Section III describes model specification. The source and description of the data is provided in Section IV and Section V examines the results of the regression estimates. Section VI discusses the decomposition of the wage differentials, while Section VII is summary and conclusion.

Literature Review: Many studies have shown that male workers are paid higher wages than their female counterparts, even though they possess similar qualifications or skills. This is because employers generally perceive female workers to be less productive, immobile and possessing less leadership skills. This phenomenon has resulted in discrimination against women, consequently leading women to hold low paying or low profile jobs [10]. Blau [11] showed that in 1981, the annual earnings of women employed full-time were only 59% of annual earnings of men in the US. Similarly, Denny and Harmon [12] also show that in Ireland men are being rewarded significantly higher than women. A study of wage differentials in Australia, Austria and Scandinavia shows that females received about 73-76% of males' wage [13].

Most studies in the United States have shown that the male-female wage gap is narrowing. The literature has emphasised a number of factors in explaining the narrowing difference between the earnings of women and men. O'Neill and Polachek [14] point to convergence in the level of schooling and work experience and the declining pay in blue-collar jobs as important factors in explaining the narrowing gender wage differentials. Blau and Kahn [15] argue that the important factors are improvement in the level of experience of women, women entry into higher paying occupations, unionisation and a decline in the unexplained portion of wage differentials. Polachek [16-17] identifies that the biggest part of gender wage differentials could be explained by differences in human capital stock. It has also been widely shown that the experience related variables (years of working experience, years of job tenure) have a significant effect on male-female earnings differentials [17-21]. Lerman [22] found that between 1984 and 1995, wage growth rate among the more educated workers was higher than that of the less educated workers especially for females. This consequently reduces male-female wage gap at all educational levels and the total wage gap decreased by 44% or 13 percentage points. Sicilian and Grossberg [23] find that nearly 40% of gender wage gap in the United

States is unexplained. Training plays little role in the wage gap but other human capital variables, occupation and industry characteristics are important determinants.

Bullard [24] studies the United States Labour market and finds that on average females earn US$7015 less than males in the 20 Western states but male-female wage gap was getting smaller. Three major factors that may explain this difference are occupation, experience and educational attainment. Berger and Chandra [25] carry out another study in the United States using data of Current Population Survey of 1968 and 1997. They find that gender wage differentials was narrowing and this could be due to unexplained variables, i.e. a decline in discrimination or changes in career-related decision option of women. Study by Xin Meng [26] in China shows that females received 20% less wage than males. The highest percentage of gender wage differentials is attributed to discrimination that make up about 84% to 102% of the differentials using female weighted and male weighted respectively. When occupation dummy is included in the wage model, the contribution of discrimination reduced to about 78% to 91%. Neuman and Weisberg [27] study in Israel find that over 70% of gender wage differences is stemmed from discrimination and only 30% from gender difference characteristics, find similar findings.

Prisco [28] studies the wage gap relationship in Italy and finds that the gender earnings gap is narrowing as the level of education increases. The gender differential among those who have completed the same type of secondary education is greater than among those who have graduated with the same university major. In 1989, the gender wage gap among the university graduates was 10% and decreasing to 2% by 1995. Luzzi [29] studies gender differences in wage in Switzerland and finds that unexplained variables play greater role than differences in human capital characteristics, which implies that discrimination is an important element of gender differences in wage. Further, this study finds that the percentage contribution of human capital variables to gender wage gap increased slightly from 47% in 1991 to 49% in 1995. Solberg [30] introduced a different dimension when estimating gender wage differentials. He argues that occupational choice plays important role in determining gender wage differentials. When this variable is incorporated into the model, he finds that part of the gender wage gap is due to gender occupational preferences that lie between 15.6% and 18.4%.

A study by Xiao-Yuan Dong and Liqin Zhang [31] using data of 1500 firms in China shows that females received significantly lower wage than males due to differences in their productivity, but no discriminatory practice by the employers. Further, the same study finds that gender wage differentials in China are more prevalent among the unskilled workers. In contrast, a study by Jones and Tanaka [32] using three countries data set, i.e. Japan, Russia and the United States find a huge percentage of male advantage and female disadvantage that attribute to gender wage differentials. The characteristics variables contribute less than 30% of gender wage differentials in Japan and their contribution is barely 5% in Russia and 11.6% in the United States. This indicates that discriminatory practice plays major role in determining gender wage differentials in these countries

Few studies have been conducted to look at the determinants wage differentials in Malaysia. Most of these studies concentrate on the role of education and training on earnings and wage differentials. Chua [33] studies wage differentials by sex in Malaysia using the Household Income Survey of 1973 and the Labour Force Survey of 1974. He estimates several wage functions and finds that unexplained variables contribute about 36% to 74% to male-females wage differentials. Difference in the characteristics explained 26% to 63%. Chapman and Harding [34] find that the most important determinants of average wage differences is the differences in the occupational distribution of men and women, whereby women tend to be in low paying occupations. Furthermore, they find that females earn only about 71% of the males earning.

Latifah [35] using data from Malaysian Family Life Survey 2 (MFLS2) 1988, finds that about 87.5% to 93.9% of gender earnings differentials in Malaysia is attributed to unexplained variables. The explained variables contribute to only less than 10% of earnings differentials. This reflects the fact that the discriminatory practice is quite serious in the Malaysian labour market. In contrast, Rahmah and Zulridah [36] find that about 74.3% of gender wage differentials in Malaysia is attributed to explained variables and only about 26.7% is unexplained. The most important explained variables are human capital followed by job characteristics and demographic factors. However, Rahmah [9] shows that in the Malaysian services sector only 27.5% of the male-female wage differentials can be explained. The unexplained variables contribute 72.5% of male-female wage differentials and the divergence

coefficient is 0.1302. Shazwani [37] using workers' data in the information and communication technology (ICT) sector in Malaysia, finds about the similar results. In her study, the unexplained variables contribute about 79.62% of the gender wage differentials but the degree of discrimination is lower with the divergence coefficient of 0.022.

Model Specification: The statistical framework of the study consists of two models. The first model consists of three wage equations: (1) using pooled sample, (2) using male sample and (3) using female sample. These three equations are estimated using a standard ordinary least squares method. The second model consists of Oaxaca and Ransom's (1994) wage decomposition equation. The standard wage regression used is as follows:

$$\ln W = \alpha + X'\beta + Z'\delta + Y'\theta + K'\lambda + \mu \quad (1)$$

Where lnW is natural logarithm of monthly wages, X represents a vector of demographic variables; Z represents a vector of human capital variables and Y represents a vector of job characteristics and u is a random disturbance term which is assumed iid (0, σ_u^2). By incorporating all estimated variables into equation (1), the separate estimation models for male and female are as follows:

$$\ln W_M = \beta_{10} + \beta_{11}CH_M + \beta_{12}REG_M + \beta_{13}TRG_M + \beta_{14}EDU_M + \beta_{15}EXP_M + \beta_{16}EXP_M{}^2 + \beta_{17}LIS_M + \beta_{18}EST_M + \beta_{19}WSS_M + \beta_{110}WSR_M + \mu_M \quad (2)$$

$$\ln W_F = \beta_{20} + \beta_{21}CH_F + \beta_{22}REG_F + \beta_{23}TRG_F + \beta_{24}EDU_F + \beta_{25}EXP_F + \beta_{26}EXP_F{}^2 + \beta_{27}LIS_F + \beta_{28}EST_F + \beta_{29}WSS_F + \beta_{210}WSR_F + \mu_F \quad (3)$$

Where,

lnW is the natural logarithm of monthly wages of working households

CH is dummy variable for race, coded 1 if Chinese, 0 otherwise

REG is dummy variable for region, coded 1 if developed region (Selangor, Melaka, Johor, Pulau Pinang, Perak, Wilayah Persekutuan, Kuala Lumpur, Negeri Sembilan), 0 otherwise

TRG is dummy variable for training attended, coded 1 if attend, 0 otherwise

EDU is year of schooling of working households

EXP is year of experience of working households

EXP^2 is year of experience squares

LIS is dummy variable for place of institution, coded 1 if local, 0 otherwise

EST is dummy variable for education stream coded 1 if science and technical, 0 otherwise

WSS is dummy variable for work status coded 1 if full-time, 0 otherwise

WSR is dummy variable for work sector, coded 1 if services, 0 otherwise

α is intercepts

μ is the error terms

M, F are male and female respectively

Thus, the mean gender wage differentials can be written as follows:

$$\overline{\ln W}_M - \overline{\ln W}_F = (\hat{\alpha}_M - \hat{\alpha}^*) + (\hat{\alpha}^* - \hat{\alpha}_F) + (\bar{X}_M - \bar{X}_F)\hat{\beta}^* + \bar{X}_M(\hat{\beta}_M - \hat{\beta}^*) + \bar{X}_F(\hat{\beta}^* - \hat{\beta}_F) \quad (4),$$

where $\overline{\ln W}_M$, $\overline{\ln W}_F$, $\overline{X_M}$, $\overline{X_F}$, $\hat{\alpha}_M$, $\hat{\alpha}_F$, $\hat{\beta}_M$ and $\hat{\beta}_F$ are the means of the natural logarithm of the observed monthly wages, the means of the observed productivity-related characteristics, the means of the intercept and the coefficient estimates for females and males respectively. The coefficient vector of $\hat{\alpha}^*$ and $\hat{\beta}^*$ represent the discrimination-free returns. $\hat{\alpha}^*$ and $\hat{\beta}^*$ are estimated using pooled sample of males and females. The first and second terms on the right-hand side represents the difference in intercept and part of unexplained term for wage differentials. The third term i.e., $(\bar{X}_M - \bar{X}_F)\hat{\beta}^*)$ represents the portion of the difference in wages across gender due to gender differences in mean levels of productivity and other characteristics. The last two terms are the male and female 'treatment effects' respectively,

Table 1: Distribution of working household by gender and state

	Male		Female		Total	
State	Number	%	Number	%	Number	%
Developed State:						
Selangor	1111	63.1	650	36.9	1761	100.0
Negeri Sembilan	234	61.1	149	38.9	383	100.0
Melaka	154	54.8	127	45.2	281	100.0
Johor	726	64.8	394	35.2	1120	100.0
W.P. Kuala Lumpur	309	59.3	212	40.7	521	100.0
Pulau Pinang	339	61.3	214	38.7	553	100.0
Perak	436	64.5	240	35.5	676	100.0
Less Developed State:						
Kelantan	288	62.9	170	37.1	458	100.0
Terengganu	199	68.6	91	31.4	290	100.0
Pahang	266	65.0	143	35.0	409	100.0
Perlis	65	64.4	36	35.6	101	100.0
Kedah	323	62.4	195	37.6	518	100.0
Jumlah	4450	62.9	2621	37.1	7071	100.0

Source: Field Survey 2007/2008

Table 2: Level of educational attainment by gender

	Male		Female		Total	
Year /Level of education	Number	%	Number	%	Number	%
Primary						
0-no schooling	6	0.1	8	0.1	14	0.2
>5-primary/UPSR not completed	35	0.5	19	0.3	54	0.8
6-UPSR completed	284	4.1	104	1.5	388	5.6
Secondary						
>8-PMR not completed	3	0.05	1	0.01	4	0.06
9-PMR completed	521	7.6	198	2.9	719	10.5
11-religious school	2	0.04	0	0	2	0.04
12-SPM/STPM completed	1960	28.5	1130	16.4	3090	44.9
13-certificate	282	4.1	125	1.8	407	5.9
Tertiary						
14-Diploma	541	7.9	419	6.1	960	14.0
16-Degree	594	8.6	518	7.5	1112	16.1
18-Masters	66	1.0	37	0.5	103	1.5
22-PhD	13	0.3	6	0.1	19	0.4
Total	4307	62.7	2565	37.3	6872	100.0

Source: Field Survey 2007/2008 (missing value = 199)

which measure the extent to which the returns to male and female characteristics differ from the non-discriminatory returns. These terms together with the difference in the intercept are a result of discriminatory practice by the employers in the labour market.

Source and Description of the Data

Source of Data: Data was collected through a field survey conducted in 2007/2008 for the whole Peninsular Malaysia using a set of questionnaire. The group stratified sampling method is used to get the sample size by regions, states, location and ethnicity. The household population is obtained from the Census of Population and Housing in Malaysia [38] and population composition is based on the Ninth Malaysia Plan [39]. The original intention was to get 5,000 households but only 4,003 households were successfully interviewed. The working households will be used as unit of analysis in this article. They consist of 7071 persons but due to the missing value for some variables, there are only 4535 working households covered in the analysis.

Profile of Respondent: Table 1 presents distribution of the working household by gender and state. More than half of the working households are males. The majority of them reside in the developed states with the highest percentage in Selangor followed by Johor. For the less developed states, Kedah comprises the highest

Table 3: Descriptive statistics of the variables

	Pooled	Male	Female
Variables	Mean (Std. dev.)	Mean (Standard Deviation)	Mean (Standard Deviation)
Demographic	0.1800	0.1800	0.1700
Chinese	(0.3840)	(0.3860)	(0.3790)
Region	0.7800	0.7900	0.7800
	(0.4110)	(0.4080)	(0.4160)
Human Capital			
Training	0.4200	0.4300	0.4100
	(0.4940)	(0.4950)	(0.4920)
Year of Schooling	12.8200	12.6700	13.0600
	(2.0440)	(2.0870)	(1.9530)
Experience	12.3808	13.8728	10.0631
	(9.5978)	(9.8841)	(8.6412)
$Experience^2$	245.3827	290.1130	175.8945
	(324.3906)	(355.5246)	(253.8810)
Education Stream	0.3600	0.4000	0.3000
	(0.4790)	(0.4890)	(0.45700)
Local Institution	0.9800	0.9800	0.9800
	(0.1370)	(0.1280)	(0.1500)
Job Characteristics			
Full-time	0.9100	0.8900	0.9400
Service sector	(0.2870)	(0.3100)	(0.2460)
	0.7600	0.7200	0.8300
	(0.4270)	(0.4510)	(0.3790)
Wage	RM2,013	RM2, 171.34	RM1,789.51
ln Wage	7.6074	7.6831	7.4897
	(0.6333)	(0.6348)	(0.6130)

percentage of respondents followed by Kelantan, whereas, Perlis has the lowest percentage. This distribution reflects the distribution of population in Malaysia.

Almost half of the working households attain SPM/STPM level of education. The percentage of them who achieve tertiary level of education is higher among the males compared to the females. However, the percentage of males with primary education is also higher than of the females.

Table 3 shows the descriptive statistics of the variables used in the model. As expected, the mean wage for male workers is higher than that of the female workers. About 18% of the samples are Chinese and 78% live in the developed region. The percentage of males who attended training is higher than the females. Surprisingly, it is shown that the females have longer years of schooling than the males but males have longer working experience. About 36% of the working households are from science and technology stream of education and the majority of them attain their education from the local institutions. The majority of them are full-time workers and about 76% work in the services sector.

RESULTS OF THE REGRESSION ESTIMATES

Table 4 reports OLS estimates for the three equations, 1) using pooled sample, 2) using male sample and 3) using female sample. The results demonstrate that all incorporated variables are positive and significantly determine the logarithm of wages except for EXP^2 and local institution (LI). The Chinese working households receive about 29% higher wages than the other races and the developed region rewards 25.8% higher wages than the less developed. The working household who attended training have between 16.6% to 19.4% wage premiums. Returns to education are between 12.3% and 13.7% and it is slightly higher for female as compared to males. Returns to experience are between 4.8% and 6.0% and it is higher for males. Workers who are educated locally also lose wage premium of about 24.1% to 30.5%.

Table 4: Results of the regression estimates

	Pooled Sample	Male	Female
Variables	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)
Intercept	5.296	5.434	5.054
	(65.541)***	(51.440)***	(40.719)***
Demographic			
CH	0.290	0.321	0.240
REG	(15.509)***	(13.533)***	(8.164)***
	0.258	0.277	0.227
	(14.896)***	(12.439)***	(8.518)8***
Human Capital			
TRG	0.194	0.206	0.166
	(12.787)***	(10.609)***	(7.089)***
EDU	0.127	0.123	0.137
	(32.369)***	(24.931)***	(21.678)***
EXP	0.057	0.060	0.048
	(23.303)***	(19.643)***	(10.434)***
EXP^2	-0.001	-0.001	-0.001
	(-15.826)***	(-14.538)***	(-6.406)***
EST	0.103	0.083	0.092
	(6.686)***	(4.306)***	(3.706)***
LIS	-0.254	-0.305	-0.241
	(-4.787)***.	(-4.216)***	(-3.200)***
Job Characteristics			
WSS	0.095	0.098	0.151
	(3.691)***	(3.169)**	(3.301)***
WSR	0.058	0.045	0.148
	(3.312)***	(2.160)**	(4.735)***
N	4535	2759	1776
$\overline{R}^2$	0.428	0.439	0.424

Note: * significant at 10% significance level.

** significant at 5% significance level

*** significant at 1% significance level

Table 5: Decomposition of male-female wage differentials

	Explained	Male Advantage	Female Disadvantage	Total Treatment Effects	Total Differential
	$(\overline{X}_M - \overline{X}_F)\hat{\beta}^*$	$(\hat{\alpha}_M - \hat{\alpha}^*) + \overline{X}_M(\hat{\beta}_M - \hat{\beta}^*)$	$(\hat{\alpha}^* - \hat{\alpha}_F) + \overline{X}_F(\hat{\beta}^* - \hat{\beta}_F)$	$(\hat{\alpha}_M - \hat{\alpha}^*) + (\hat{\alpha}^* - \hat{\alpha}_F) + \overline{X}_M(\hat{\beta}_M - \hat{\beta}^*) + \overline{X}_F(\hat{\beta}^* - \hat{\beta}_F)$	$\overline{\ln W_M} - \overline{\ln W_F}$
Variable	(% of total differentials)	(% of total differentials)	% of total differentials)	(% of total differentials)	(% of total differentials)
Intercept		0.138(153.3)	0.242(221.31)	0.38(190.6)	0.38(145.43)
Demographic					
Chinese	0.0029(4.68)	0.00558(6.2)	0.0085(7.77)	0.01408(7.06)	0.01698(6.49)
Region	0.00258(4.16)	0.01501(16.67)	0.02418(22.11)	0.03919(19.7)	0.04177(15.99)
Human Capital					
Training	0.00388(6.26)	0.00516(5.73)	0.01148(10.5)	0.01664(8.35)	0.02052(7.85)
Year of Schooling	-0.04953(-79.97)	-0.05068(-56.3)	-0.1306(-119.43)	-0.18128(-90.93)	-0.23081(-88.33)
Experience	0.217153(350.62)	0.041618(46.23)	0.090568(82.82)	0.132186(66.3)	0.349339(133.69)
$Experience^2$	-0.11422(-184.42)	0.0	0.0	0.0 -0.11422(-43.71)	
Education Stream	0.0103(16.63)	-0.008(-8.89)	0.0033(3.02)	-0.0047(-2.36)	0.0056(2.14)
Local Institution	0.000(0.01)	-0.04998(-55.52)	-0.01274(-11.65)	-0.06272(-31.46)	-0.06272(-24.0)
Job Characteristics					
Full-time	-0.00475(-7.67)	0.00267(2.97)	-0.05264(-48.14)	-0.04997(-25.1)	-0.05472(-20.94)
Service sector	-0.00638(-10.30)	-0.00936(-10.4)	-0.0748(-68.31)	-0.08406(-42.16)	-0.09044(-34.61)
Total	0.061934(100.0)	0.09002(100.0)	0.10935(100.0)	0.19937(100.0)	0.2613(100.0)
Divergence Coefficient (D)				0.2206	

Decomposition of Wage Differentials: Table 5 illustrates the decomposition of gender wage differentials, which is divided into five parts. The first part explains gender wage differentials that due to differences in the means of variables entered into the wage functions that are commonly known as the explained portion of the wage gap. The second and third columns explain the differences in the estimated coefficients on those factors that are commonly known as the unexplained portion of the gender wage gap or the treatment effects. This part is important since it measures the extent to which the returns to male and female characteristics differ from the non-discriminatory returns. The results show that only 23.7% of the male-female wage differentials can be explained. The unexplained variables contribute 76.3% of male-female wage differentials and the divergence coefficient is 0.2206. Gender differences for the demographic factors explain 22.84% of the wage gap between men and women. The most important human capital variables that explain gender wage gap is experience, followed by training and education stream. Job characteristics contribute negatively to the total differentials. The result is consistent with Rahmah [37] and Shazwani [38].

When comparing the result with other countries, it is also consistent with the study by Xin Ming [26] in China and by Neuman and Weisberg [27] in Israel, which showed that about 84-102% and 72% of gender wage gap, respectively, was unexplained. However, for more developed countries like United States, the past studies showed the lesser role of unexplained variables in determining the gender wage gap as shown by Sicilian and Grossberg [23] and Berger and Chandra [25]. In both studies, there was about 40% of the gender wage gap was unexplained. This indicates the role of discrimination become lesser when the countries are more developed, which may due to liberalisation and a more stringent law.

SUMMARY AND CONCLUSION

The results from the estimation of wage models reveal that wage differentials prevail between, races, region and education stream, place of institution and job characteristics. The Chinese and working households who live in more developed region are paid higher wages. Workers who had attended training also received wage premium. Workers with higher educational level are able to receive significantly higher wages than those with lower education. Furthermore, working experience is found to be a very important determinant of wages. This indicates the importance of human capital variables in determining the individual earning power. Other interesting findings are working households who receive education from abroad and be in the science and technical stream have a greater earnings power. In addition, workers involved in the services sector are paid significantly higher wages than those in other sector.

The decomposition of gender wage differentials reveals that among the explained variables, the most important determinant are working experience and education stream followed by the demographic factors. In contrast, industry characteristics and most of the human capital variables are related to non-discriminatory as shown by the negative value of the unexplained variables. The total treatment effect is quite large and this indicates a serious discriminatory practice in the Malaysian labour market. This result is consistent with Rahmah [9].

As the demographic factors are exogenously determined, other impending factors that contribute to gender wage differentials must be taken into account for the policy purposes. Since human capital variables like training and education stream are imminent determinants of gender wage differentials, they should be given more emphasis in the policy framework. The female must be encouraged to attend training programmes provided by the employers. Moreover, employers must provide adequate training facilities to cater for all suitable workers. Education stream, on the other hands, reflect the important of science and technology in securing higher pay jobs. Therefore, the emphasis on this stream as implemented by the government must be continued.

REFERENCES

1. Becker, G., 1964. Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. Chicago, University of Chicago Press.
2. Berman, E. and S. Machin, 2000. Skill-biased technology transfer around the world. Oxford Review of Economic Policy, 16: 12-22.
3. Berman, E., J. Bound and S. Machin, 1997. Implications of Skill-Biased Technological Change: International Evidence, Boston University-Institute for Economic Development, pp: 78.
4. Machin, S., 2002. Changing more of labour demand in the new economy and skill-biased technological change. Oxford Bulletin of Economics and Statistics, 63: 753-766.
5. Katz, L. and K.M. Murphy, 1992. Changes in relative wages, 1963-1987: supply and demand factors. The Quarterly Journal of Economics, 107: 35-78.

6. Zanchi, L ., 1998. Interindustry wage differentials in dummy variable models. Economics Letters, 60: 297-301.
7. Mincer, J., 1996. Economic Development, Growth of Human Capital and the Dynamics of the Wage Structure. Journal of Economic Growth, 1: 29-48.
8. Barron, R.D. and G.M. Norris, 1976. Sexual division and the dual labor marketing dependence and exploitation in work and marriage. In D.L. Baker and S. Allen (eds). Dependence and exploitation in marriage and work, London: Longman, pp: 47-69.
9. Rahmah Ismail, 2008. Gender Wage Differentials in the Malaysian Services Sector. Paper presented at the Fourth International Conference on the Global Academy of Business and Economics Research, pp: 28-30 December, Bangkok, Thailand.
10. Darity, W.A. and P.L. Mason, 1998. Evidence on discrimination in employment: Codes of color, codes of gender. Journal of Economic Perspectives, 12: 63-90.
11. Blau, F.D., 1998. Trends in the well-being of American women, 1970-1995. Journal of Economic Literature, 36(1): 112-165.
12. Denny, J.D. and C.P. Harmon, 2000. The impact of education and training on the labour market experiences of young adults. The Institute for Fiscal studies, (IFS): (1-16).
13. Neumark, D., 2004. Sex differences in labour market. London : Routledge.
14. O'Neill, J. and S. Polachek, 1980. Why the gender gap narrowed in the 1980s. Journal of Labor Economics, 11(1): 205-228.
15. Blau, F.D. and L.M. Kahn, 1997. Swimming upstream: trend in the gender wage differential in the 1980s. Journal of Labor Economics, 15(1): 1-42.
16. Polachek, S.W., 1975. Differences in post school investment as a determinant of market wage differentials. International Economic Review, 16(2): 451-471.
17. Polachek, S.W., 1981. Occupational sex selection: A human capital approach to sex differences in occupational structure. Review of Economics and Statistic, 63(1): 60-69.
18. Mincer, J. and H. Ofek, 1981. Interrupted work careers: Depreciation and restoration of human capital. The Journal of Human Resources, 17(1): 3-24.
19. Mincer, J. and S.W. Polachek, 1974. Family investment in human capital: Earnings of women. Journal of Political Economy, 82(2): 76-108.
20. O'Neill, J., 1985. The trend in the male-female wage gap in the U.S.. Journal of Labor Economics. Supplement, 3(1): 91-116.
21. Bergmann, B., 1989. Does the market for women's need fixing? Journal of Economic Perspectives, 3(1): 43-60.
22. Lerman, R.I., 2000. Meritocracy without rising inequality? Number 2 in series, economic restructuring and the job market, Human Resource Policy Center, Urban Institute, American University, pp: 1-9.
23. Sicilian, P. and A.J. Grossberg, 2001. Investment in human capital and gender wage differences: evidence from the NLSY. Applied Economics, 33(4): 463-471.
24. Bullard, D., 1999. Estimating wage differentials for the Western Region using the March current population survey (CPS) supplement. The Wyoming Department of Employment, Research and Planning, pp: 1-5.
25. Berger, M.C. and A. Chandra, 1999. The gender wage gap in Kentucky. In The Future Well-Being of Women in Kentucky, pp: 24-34.
26. Xin Meng, 1998. Male-female wage discrimination and gender wage discrimination in China's rural industrial sector. Labour Economics, 5: 67-88.
27. Neuman, S. and J. Weisberg, 1998. Gender wage differentials and discrimination among Israeli mangers. International Journal of Manpower, 19(3): 161-170.
28. Prisco, Anne Marie, 2000. Trends in wage inequality in Italy during the 1990s: Why a university degree now matters. PhD. dissertation, Columbia University, United States--New York.
29. Luzzi, G.F., 1998. On gender differences in wages in Switzerland. International Journal of Manpower, 10(7): 475-485.
30. Solberg, E.J., 2004. Occupational assignment, hiring discrimination and the gender pay gap. Atlantic Economic Journal, 32(1): 11-27.
31. Xiao-Yuan Dong and Liqin Zhang, 2008. Economic transition and gender differences in wages and productivity:evidence from Chinese enterprises. Journal of Development Economics, 37(1): 1-11.
32. Jones, G. and Yusuhide Tanaka, 2008. Changes in gender wage discrimination in the 1990s: a tale of three very different economies. Japan and the World Economy, 20: 97-113.
33. Chua Yee Yen, 1984. Wage differentials in Peninsular Malaysia. Ph D dissertation, University of California, Santa Barbara.

34. Chapman, B.J. and J.R. Harding, 1985. Sex differences in earnings: An analysis of Malaysian wage data. Journal of Development Studies, 21(3): 362-376.
35. Latifah Mohd, Nor, 1998. An overview of gender earnings differentials in Peninsular Malaysia. IIUM Journal of Economics and Management, 6(1): 23-49.
36. Rahmah Ismail and Zulridah Mohd Noor, 2005. Gender wage differentials in the Malaysian manufacturing sector. IIUM Journal of Economics and Management, 13(2): 119-137.
37. Shazwani Malek, 2009. Gender wage discrimination in information and communication technology. Masters of Economics Thesis, Faculty of Economics and Business, Universiti Kebangsaan Malaysia, Bangi, Selangor.
38. Department of Statistics Malaysia, 2001. Census of Population and Housing Malaysia 2000, Kuala Lumpur: Government Publication.
39. Malaysia, 2006. The Ninth Malaysia Plan, 2006-2010. Kuala Lumpur: Percetakan Nasional Malaysia Berhad, Government Publication.