Analysis of Earnings Determinants and Earnings Differentials Among Urban Laborers in Some Southern Cities of Viet Nam

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Abstract: This study aims at providing a more specific insight into the determining of earnings and earning differentials of those who ogrinated from the Mekong River Delta region of Vietnam (called MRD migrants) and also local workers by using the survey data from some urban destinations in the Southern cities. In examining the earnings, empirical models such as standard Mincer and expanded Mincer equations were applied to test the human capital theory that relates to the crucial role of human capital in improving individual's earnings. In addition, several important variables including gender, employment, and migration status were also incorporated in the expanded Mincer equation in order to control ability bias among individuals that may influence the earnings. The estimated results demonstrate that education and job experience are two key factors that not only contribute positively to an improvement of living standard for general laborers, but also explain inequality in earnings among groups of laborers on the labor market.

Keywords: migrants, earnings, Mekong River Delta, urban destination.

1. Introduction

The policy of economic structural change in Vietnam – as in many other developing countries – has led to a mobility of labor force from agriculture to industry and services, from rural to urban areas (Lewis, 1954). Rural to urban migrants have substantially contributed to a rapid increase in urban population. Statistical data has shown that rural to urban migrants increased remarkably from 850,000 in 1999 to over 2 million in 2009; in relative terms, from 7.2% of the urban population in 1999 to 8.9% after 10 years. While, about 220,000 people left urban area for rural area in 1999 and this figure in 2009 was approximately 550,000, respectively accounting for 0.6% and 1% of the rural population in the same period (VGSO, 2010, Table 2.3, 25).

In the most period of 2004-2009, more than 900,000 people left rural provinces of the Mekong River Delta (MRD) region for other regions (over 75% moving to the Southeast region), whereas about 250,000 migrants from other regions entered the MRD region (over 20% arriving at Can Tho urban city). Information presented in Table 1 show a growing pattern of migration in the MRD region in the recent decade.

Table 1: Migration flows (persons, ‰) in the MRD region

Migration	2005	2015	2018
Out-migrant	75,083 (4.36)	114,218 (6.50)	121,072 (6.8)
In-migrant	46,152 (2.68)	19,329 (1.10)	17,804 (1.0)

Source: Calculation from the VGSO (2019) 2015
Note: migrant numbers are rounded and numbers in parentheses are the migration rate to population (‰).

The United Nations Population Fund in Vietnam (UNFPA, 2007) published a manuscript on "Internal migration in Vietnam: the current situation" in 2007, which based on the 2004 Vietnam Migration Survey to offer a picture of migrants at major urban cities, describing their stories on migration decision, employment, and relationship between migrants and their family at origin. The most important stylized facts on migrants are summarized as follows:

– Most migrants are young adults (over ½ migrants are less than 25 years old), female migration rate is increasing. Female migrants are often younger than male ones (e.g. 17% female migrants aged less than 25 versus 11.4% for males at the same age). Their decision of migration was more associated with economic factors (i.e. employment and living standard) rather than other reasons.

– Most migrants obtained information of migration (i.e. job, wage, living conditions, etc) with supports from their relatives or friends who were also migrants or lived in the place of destination, whereas only 2% migrants used job creation agencies to obtain such a kind of information.

– Clear evidence of a positive relationship between income and human capital among laborers (both migrants and non-migrants) is presented, as most laborers with well-educated or skilled have better feelings of income than those with low skills. The empirical results also indicate that females often face more disadvantages than males, with respect to job opportunities, skill acquisition, wages, and so on.

– Remittances sent back family are a relatively large share of migrant's incomes, these amounts often account at averagely for 10% of the total incomes for males and 17% for females.

These stylized facts provide typical insights into employment and life of Vietnamese internal migrants at urban cities. Besides, a given proportion of non-migrants were also accounted on the analysis of migration for the comparison purpose. As argued by Borjas (1994) that migrant flows create a rapid increase of urban population and such trend would affect employment opportunities of non-migrant laborers.

According to the Viet Nam's Statistical Office, the MRD is currently the most sending region in Vietnam and the most attractive destinations for MRD out-migrants are the urban cities of the Southeast region (especially Ho Chi

Minh city, accounting for 45.9% of the total MRD migrants) and urban provinces within the MRD region making up 20.4% (mainly Can Tho city). From such figures, the MRD out-migrants play an important role in the labor force at urban destinations, but proper understanding of life for these MRD out-migrants remains unexplored.

Hence, the purpose of this study is to provide an empirical analysis of MRD migrants in a comparison with local laborers at major destinations in Vietnam. More specific, the central questions addressed are as follows: (i) What are determinants of the earningsamong laborers? (ii) How is the importance of human capital in improving earnings for laborers? (iii) Are the earnings different between migrants and non-migrants? These concerns would be explored using the surveying data (collected by the author) in areas of the urban destination, including Ho Chi Minh city, Can Tho city and Vinh Long province.

The following part of this work is organized as follows. Section 2 presents theory and hypothesis related to determine factors of the earnings. Additionally, selected methods for analysis are intensively motivated by a number of empirical findings related. Section 3 shows a detailed description of the data sources and explains statistical results of the sample. Section 4 presents the empirical findings that explain determinants of the earnings among migrants and local laborers. Finally, several conclusions are drawn in Section 5.

2. Theoretical review of earning determinants

2.2. Basic concepts

This part reviews existent concepts and calculations of the earnings or wages. In the literature, we can find some definitions, as follows:

"Earnings (wages and salaries) is the concept of earnings as applied in wages statistics, related to an amount of compensation in cash and I kind received by employees in exchange for their labor" (Intertional Labour Organization, 1998).

With respect to the employment classification, Piana (2001) presents a clearer definition of wages for those who are commonly assigned into one of two typical types of jobs: wage-employment and self-employment, a definition that seems to be more appropriate for this study is described by.

"A wage is the most common income of people. In the perception of workers, clerks, managers, and employees in general, a wage and a salary constitute the core element in income for the majority of active people".

"By contrast, self-employed laborers do not receive wage, but sell their labor directly on the market. Property and enterprise owners, on the contrary, obtain income from rents, dividends, and other financial instruments' gains".

According to the popularly used definition of the ILO (1998), it specifies that earnings from the self-employment are defined as the income which is

received, in a given reference period, by individuals for themselves regarding to their involvement in self-employment jobs.

For wage-employed laborers, their earnings (or wages) compose of a variety of monetary and non-monetary payments, like goods, meal vouchers, gasoline, telephone credit, or stock options.

For the particular context of Vietnam, wages are primarily defined basing on two main compositions that may be expressed by:

– A minimum wage rate multiplied by a *k* index (offered at white-collar workers and officials in the state organizations).

– A combination of a minimum wage rate and a production-based wages (mainly offered at blue-collar workers or seasonal and temporary workers).

In empirical, *k* index is very different among types of enterprises or industries. Overall, the *k* index primarily relies on a large extent of individuals' human capital such as educational background, working experience, and job-related features. Normally, the income for employees in the non-state owned enterprises is more variable than that for those in the state owned units, because these laborers receive their wages corresponding with what they contributed. For manual laborers – i.e. laborers working for individuals or household owned traders – their earnings are sometimes based on an oral agreement between two parties. While, those who work in the state owned organizations often receive their salary in monthly which is calculated by depending on the *k* index and been multiplied with the level of the minimum wage. Generally, wages or earnings of laborers in Vietnam are usually calculated on a monthly basis rather than per hour.

There is little consensus on how earnings stemming from self-employment should be defined, however, we can rely upon the method commonly applied in the financial field: earnings are the difference between the gains and costs of sales, operating expenses, personal direct taxes and other employment-related obligations in a given period (Intertional Labour Organization, 1998). We consider this definition as a useful instrument to identify the earnings of self-employed laborers in this study.

2.2. Estimating determinants of earnings

The human capital theory posits several factors which determine the level of earnings for individuals on the labor market. Among the most rewarded attributes in this framework is the level of educational attainment and labor market experience (Becker, 1975; J. Mincer, 1958; 1974). These authors provided empirical findings on the relationship between human capital investment and earnings, in which the accumulation of human capital would have a positive effect on individual's earnings, with a quadratic shaped curve – a concave function. Empirical findings from the U.S in 1959, Mincer (1974) documented that annual earnings nearly doubled after two to three decades of working

experience and that this was the case irrespective of the schooling level for all white, non-farm male laborers.

Even though there is a general consensus in the literature, some recent studies (see e.g. Borjas, 2010; Lu & Song, 2006; Madalozzo, 2002) suggest that gender impact on the earnings is substantial in reality. Often, female laborers face more disadvantages in earnings than their male counterparts on the labor market. Such a gap of earnings may be explained in practice for a number of reasons, not just by two factors of the human capital.

For instance of the U.S labor market, Madalozzo (2002) finds a stylized fact that female laborers earned significantly less compared to their male counterparts. After accounting for their marital status, single females earned 4% more than married females. Recent findings of Lu and Song (2006) also find a similar evidence on female's disadvantages of earnings for China context. In addition, they indicates that migrants, who have stayed longer and have a permanent residence permit at destination, can accumulate more skills, experience, and social relation in which they could get easily a preferred job with better feelings of the earnings rather than new arrivals.

Most recently, Borjas (2010) gives an explanation about the disadvantage of earnings for female laborers on the labor market. To make clearly this, he highlights the discontinuity of employment for family reasons like pregnancy and child-raising. As such, married females are more likely to prefer self-employment to wage-employment, because the self-employment allows them to arrange actively and care well both house work and market work.

It is apparent that the earnings difference among various specific-groups is not only explained solely by the variance of human capital, but also by individual characteristics (e.g. gender, marital status). In empirical, many studies have attempted to determine potential effects of these factors on the earnings and the earnings inequality on the other hand. Among those, for example, Autor *et al.,* (2008) for the U.S; Pereira & Martin (2000) for some European countries; Tansel (2005) for Turkey; Dewen *et al.,* (2010) for China; Pham & Reilly (2009), Walle & Gunewardena (2001) for Vietnam.

To empirically examine this correlation, the Mincer wage equation is commonly employed both within the U.S as internationally. This model provides a basic idea of the marginal Rate of Return (RoR) to schooling and to job experience on individual's earnings. In other words, the RoR to schooling reflects the percentage change in earnings resulting from getting one additional year of schooling. Similarly, the RoR to experience gives the percentage change in earnings from having an additional year of job experience.

The standard human capital earnings function developed by Mincer (1974) is specified by

$$\ln(W_i) = \alpha_0 + \beta_1 S_i + \beta_2 E_i + \beta_3 E_i^2 + \varepsilon_i \tag{1}$$

With W_i represents the laborer's earnings or wages, S_i represents the number of years of schooling, E_i represents the number of years of job experience on the labor market and ε_i is error terms. β_1 is the RoR to schooling (S_i) representing the effects of schooling, β_2 is the RoR to experience (E_i) representing the effects of experience, and β_3 is also the second RoR to experience and assumed to be concave in accumulated years of experience on the labor market.

An important issue that may be overlooked when using the Mincer wage equation (1), is the heterogeneity of individual ability. This implies a concern of "ability bias" standing for things which we have ignored in the estimation. Hence, the result of estimates for returns to education and experience using the equation (1) would be biased (Belzil, 2007; Griliches, 1977).

Ability bias

The available evidence suggests that there may have a significant correlation between the laborer's human capital accumulation (e.g. schooling) and his/her inherent ability (Blackburn & Neumark, 1991). Assuming that there is a positive relationship between individual ability and education, our result from the OLS estimation would lead to an overestimation of the return to education (relative to β_1).

To deal with this problem, a possible solution is opened with two steps: First, we incorporate more control variables indicating individual bias such as gender, parent's educational attainment. Second, these additional variables would be taken interactively with two core factors of human capital (Dewen *et al.,* 2010; Fields, 2003).

Consider impacts of individual ability (A_i) on the earnings differences, thus an expanded Mincer earnings function can be specified by

$$\ln(W_i) = \alpha_0' + \beta_1' S_i + \beta_2' E_i + \beta_3' E_i^2 + \sum \beta_k A_{ki} + \sum \beta_j (S_i * A_{ki}) + \sum \beta_m (E_i * A_{ki}) + \varepsilon_i' \quad (2)$$

In empirical, we try to keep the inclusion of explanatory variables (denoted *A*) as consistent as possible the data sets. With this regard, some explanatory variables such as gender, marital status, migration status, and employment status will be taken into account.

2.3. Earnings difference among individual groups

The differences in individual's earnings (or the earnings inequality) have long been an interesting topic for scholars in the labor economics, as well as an important subject to policy issues for managers. A better understanding of the earnings inequality is important meanings not only to narrow economic disparity among sectors, industries in the economy by using the wage regimes, but also to point out which factors attributed to the gap of earnings.

With the given importance of determining the differences in earnings among individuals, some approaches are opened to capture this gap between targeted groups of individuals. The most widely used and striking are the

Chow test and the Oaxaca-Blinder decomposition. The Chow test - another application of the F-test - is a useful tool to test whether the coefficients in two earnings regression models do differ. However, a major disadvantage of this method is that it may not identify *which* coefficients of one group significantly differ from those of another one.

An alternative approach which was developed by Oaxaca (1973) and Blinder (1973) is often known as "the Oaxaca-Blinder Decomposition Analysis". The basic idea of this method is not only to investigate the earnings difference between two groups, say males and females; but also to divide such of the difference in earnings into a part which is explained by differences in education and job experience and another part related to unobserved factors that often referred to as "discrimination" (Borjas, 2010; P. W. Liu, Meng, & Zhang, 2000).

It is must be worth noting that the effects of the education and the job experience on the earning are a given part of the whole difference across groups, and others are perhaps the unobserved elements of the labor market. From empirical analysis of the wage differences between male and female laborers, Oaxaca suggested a "decomposition approach" to be able to compare the wage difference between these groups. More specifically, the two components essential to understand the wage difference are productive factors (e.g. education and job experience) on the one hand and unobserved factors (e.g. individual ability or market discrimination) on the other hand.

Following the conventional Oaxaca-Blinder Decomposition approach, the estimated mean difference in earnings between two groups, for example male (*m*) and female (*f*) is expressed as

$$\ln \overline{W}^{m} - \ln \overline{W}^{f} = (\overline{X}^{m} - \overline{X}^{f})\hat{\beta}^{m} + \overline{X}^{f}(\hat{\beta}^{m} - \hat{\beta}^{f}) \tag{3}$$

Where $\hat{\beta}$ are the OLS estimate of the parameters β from the standard Mincer wage equation, a bar over variables denotes the mean value. The mean difference in earnings between two groups is decomposed into a part attributable to differences in human capital characteristics – i.e. education and job experience – (known as the "explained" or "endowed" factors) and a second one attributable to differences in estimated returns to characteristics as called "unexplained" factors.

Selection bias

There may have a possibility for issues of selection bias associated with the OLS estimation of the earnings models for different groups of observations, because it is feasible that a specific-featured group of laborers may self select to become migrants or females. Such of a non-random selection introduces a misspecification bias in OLS estimation. For this reason, the results from the OLS estimates would be biased and inconsistent. Hence, a Heckman two-step estimation procedure developed by Heckman (1979) has been popularly used as a powerful alternative to correct this bias.

So, the mean earnings decomposition in the presence of selection correction can be re-written by

$$\ln \overline{W}^m - \ln \overline{W}^f = (\overline{X}^m - \overline{X}^f)\hat{\beta}^m + \overline{X}^f(\hat{\beta}^m - \hat{\beta}^f) + (\hat{\tau}^m \overline{\lambda}^m - \hat{\tau}^f \overline{\lambda}^f) \qquad (9)$$

Where λ are the relevant inverse Mill's ratio in the Heckman estimation, $\hat{\tau}$ are the estimated coefficients standing for the selection correction, if $\hat{\tau}$ are significantly different from zero indicating that a Heckman two-step approach should be used to correct the selection bias. Otherwise, OLS estimates are still plausible for the calculation of decomposition.

3. Data collection and description

3.1. Data collection

Survey location

The data used in this study comes from a survey of the total 401 laborers in three urban destinations – including Ho Chi Minh, Can Tho and Vinh Long area. The choice of these sites was based on the statistical information resulting from the census of the VGSO. As the census shows Ho Chi Minh - the most developed economic center of Vietnam - has a high concentration of migrant laborers. Most of these migrants emigrated from surrounding regions like the Central Highland, the Central Coast and the MRD region.

Can Tho city, located centrally in the MRD region, has recently become a centre for socio-economic development, offering many opportunities of employment for migrant laborers. Those mostly come from the surrounding provinces within the region. Meanwhile, progress in the industrialization in Vinh Long city has succeeded in attracting many private and foreign investors in light industries such as food processing, shoes, and garments. As a consequence, the recent rapid growth of the industrial zones in this city has attracted a large number of migrant laborers, especially for unskilled and female ones.

Research population

The research population of this research project includes migrants who moved from the MRD region. Importantly, we target both those who are self-employed and those are in paid-employment. As we aim at understanding employment patterns and earnings in the labor market, non-migrant laborers living in one of the three selected immigration regions are taken up as a control group in the sample. Several migration studies on this topic, for example done by Espenshade, Usdanshy, & Chung (2001) and Price (2001), illustrate the fact that employment inequality against immigrant laborers is substantially found, such inequality seems to relate to the limited education and the low qualification on the one hand, and perhaps arises the market discrimination on the other hand.

In addition, as the employment status heavily influences income, we opted for selecting both self-employed and paid laborers, following the ILO definition as described earlier. Here, Table 2 shows a description of observations, as follows.

Table 2: Description of sampling units

Site	Non-migrant	Migrant	Total
Ho Chi Minh	27	73	100
Can Tho	60	140	200
Vinh Long	51	50	101
Total	138	263	401

Source: The survey by the author.

We have opted for a "key informant" sampling methodology, as we missed the statistical information necessary to conduct a random or stratified sample. Through consultancy of the local authorities, we managed to conduct the survey among 401 respondents across the three destinations. In each destination, we co-operated with the local authorities in order to get basic information about the selected area and the targeted population. In the second phase, the local authorities organized visits to candidate respondents aiming at practically arranging the interviews. In other words, local authority employees were involved throughout the fieldwork. They were also paid for their participation. We felt their involvement was necessary, as it would have been very difficult for us as outsiders, to contact and interview the respondent without the help of the local authorities. It is, however, recognized that one challenge of this sampling method is reached that selection bias may occur and is almost depended on the information quality provided by the local authorities.

In Ho Chi Minh city, District 7 was chosen for the survey due to its high concentration of migrants working for companies in the Tan Thuan export processing and industrial zone[1]. This information was provided by the local authorities, solely based on their experiences, since no officially statistical data is available. Of the 100 respondents in Ho Chi Minh city, 26% working for business households/private traders, 13% for state-owned enterprises/organizations, 36% for foreign enterprises and 25% for themselves. Concerning the destination of Can Tho city, most respondents in this city are working in self-employment and wage-employment in the central area of the city. In this area, 61.5% of the total 200 respondents (or equivalently 123 respondents) are self-employed laborers. Most of them run small-scale businesses like grocery stores and book stores, or work as street-vendors. In the third destination, Vinh Long province, we have only selected blue-collar laborers working in the industrial zones. Different from migrants in Ho Chi Minh city, the respondents here are rather unqualified, many of them dropped-out from high school. For many of these laborers, mainly married women, working relatively close to their family was the incentive to work there.

3.2. *Main characteristics of migrants and non-migrants*

The basic statistics displayed in Table 3 aims at sketching the group features of the migrants and non-migrants participating in the survey.

With regard to the age bracket of the respondents, the survey shows that the distribution of age between the two groups is fairly similar. Looking at the gender balance, 53.6% of the migrant laborers are male and 46.4% female; whereas, for the sample of non-migrant laborers, the rates are respectively 32.6% and 67.4%. A possible explanation for the outweight of men in the migrants' sample is that male migrants dominate the internal migration flows in Vietnam. The less "migratory behavior" of Vietnamese women in is seen as a result of their responsibility in taking care of family and children (UNFPA, 2007). Importantly, we find that only 31.9% of the migrants are married, compared with 46.4% of the non-migrant laborers. It has been known that the marriage may be a constraint for emigration. In fact, this relationship has been explored yet by Borjas (2010, p.326, chapter 8) who developed a graphic schedule explaining the economic effects on the migration decision for a married couple.

Table 3 also gives an overview of the educational profile of the respondents. We can observe that the distribution over the educational categories for the sample of migrant laborers is very different from the non-migrants. Among migrants, 16% completed a high school program and more than 30% obtained a vocational certificate or a higher education degree, whereas only 13% non-migrants completed vocational and higher education programs. It can be forecasted that these difference in education will affect income differences among these laborers in the survey.

Overall, the mean of years of schooling for the migrant laborers is 12, compared with 9 years for the non-migrant laborers. In addition, the survey results report that the median of years of job experience of the migrant and non-migrant laborers is 2.3 and 2.5 respectively. Noted that despite more than 25% of the non-migrant population are in age of greater than 34, only 4.3% of this sample have more 8 years of working experience, there is no available ideal to explain this fact, due to a lack of detailed information.

4. Empirical results and discussions

4.1. *Earnings patterns*

Descriptive analysis

The earnings variable[2] for all 401 surveyed laborers has a positively skewed distribution with its mean 2.41, median 1.9, skewness 2.0 and kurtosis 7.77. After taking logarithm (e base), the distribution of the earnings variable becomes more normalized, as its mean is 0.74, median 0.64, std dev 0.49, skewness 0.73, and kurtosis 2.95. Following the Mincer wage model postulated by Mincer (1974), the $\log_e$ values for this variable is, therefore, used for further analysis.

Table 3: Frequency of the sample characteristics (%)

Variable	Non-migrant (n=138)	Migrant (n=263)
Age bracket (in years)		
Younger than 25	34.8	35.7
25 – 34	39.9	44.1
Older than 34	25.3	20.2
Gender		
Male	32.6	53.6
Female	67.4	46.4
Marital status		
Married	46.4	31.9
Educational level		
Illiterate	0.0	1.5
Primary education	18.1	20.2
Secondary education	43.5	27.4
High school	25.4	18.6
Vocational training	7.2	16.3
Higher education	5.8	16.0
Job experience (in years)		
Less than 2	25.4	33.5
2 – less than 4	39.1	31.9
4 – less than 6	6.5	13.7
6 – less than 8	24.7	8.7
8 and more	4.3	12.2
Professional skill		
Skilled	13.1	32.3
Unskilled	86.9	67.7

Source: The survey by the author.

Note: According to the definition of professional skills by the VGSO, skilled people are those who have participated in a professional training program at a vocational schools or those who obtained a higher education qualification such as Bachelor, Master and Doctor (VGSO, 2009).

Table 4 reports mean and standard deviation of the earnings and major variables by categories of employment and migration. Statistical results indicate a general fact that the laborers who participate in the self-employment could earn 18% earnings higher than those engage in the wage-employment, a simple difference in the means tests show that the monthly earnings (and its logarithmic values) for the self-employed are significantly different from those for the wage-employed at the 1% level. With respect to migration, migrants to urban areas of destinations have been found more successful in the labor market than local laborers, because they are a non-random and selected sample from the population. This gap of monthly earnings between migrants and local laborers is, however, not found at statistical significance of 5% level.

Table 4: Mean, standard deviation of selected variables by categories of employment and migration

Variables	*Employment*			*Migration*		
	Self	*Wage*	*t-test*	*Migrant*	*Non-migrant*	*t-test*
Earnings (in million VND)	2.69 (0.13)	2.28 (0.09)	***	2.47 (0.09)	2.29 (0.12)	n.s
Ln(Earnings)	0.86 (0.04)	0.69 (0.03)	***	0.77 (0.03)	0.70 (0.04)	n.s
Age (in years)	36 (0.89)	26 (0.36)	***	29 (0.51)	30 (0.79)	n.s
Education (in years)	8.04 (0.30)	10.97 (0.19)	***	10.23 (0.23)	9.67 (0.25)	n.s
Experience (in years)	3.94 (0.25)	3.40 (0.17)	*	3.63 (0.19)	3.45 (0.20)	n.s
Experience squared	23.31 (2.84)	19.68 (1.89)	n.s	22.53 (2.17)	17.6 (1.96)	n.s

Standard deviations are in parentheses.
Note: * $p<0.1$, ** $p<0.05$, *** $p<0.01$, n.s not significant

The tabulated characteristics of age, education, experience indicates that self-employed have more experiences, somewhat older, but less educated than their colleagues who engage in the wage-employment. A significant difference in age and job experience between these two employed groups may be an important influent factor that results in a difference in earnings among them. As earlier discussed, self-employed laborers need time to accumulate skills as well as capital to open their business, so it is not surprising that these are likely older and better experienced than those on the labor market. For the category of migration, the mean differences in age and job experience are not found at the statistical significance.

With respect to education, laborers with less educational attainment tend to engage in the self-employment rather than applying for the wage-employment in which often required a given level of educational attainment or job skills.

Regarding migration variable, the statistical result represents that migrant laborers are truly a selected sample with some outstanding characteristics as compared to local laborers (e.g. younger, better educated, more experiences). These factors are a possibility for explaining the earnings difference between two subgroups of sample, despite results of mean tests for factors are not statistically significant.

Multivariate analysis

Our empirical analysis is divided into two parts. First, we adopt a standard Mincer wage model to capture coefficients of the endowment factors as described in the equation 1. We then conduct an estimation of the expanded Mincer wage model by using a combination of the conventional variables (i.e. schooling and job experience) and other variables such as gender, migration, marital status, residence status, employment status, and their interactions.

The main motivation for this approach is to deal with the problem of individual heteroscedasticity (i.e. ability bias) as earlier discussed.

The results of two Mincer wage regression models using OLS are presented in Table 5 that explains determinants of the earnings for 401 surveyed laborers. Generally, the similarity of the estimated coefficients of the endowed factors from the standard and the expanded Mincer wage model is an indication of their robustness. In addition, both models were not suffered from the heteroskedaticity problem (using White test). In comparison of the interpreting power, the standard model has a relatively poor fit, possible due to the fewer number of explanatory variables.

The results displayed in Table 5 suggest that the effect of two endowed factors – education and job experience – on the earnings are statistically significant and mostly in line with the theoretical and empirical literature on human capital.

In the expanded Mincer wage model, the inclusion of new factors (refer to as ability bias) plays an important role in determining the earnings. First of all, this incorporation increases the explanatory power of the standard model to this expanded model with over 15% as the R^2 rises from 29.7% to 45.5%.

Table 5: OLS results of the Mincer wage equation – dependent ln(Earnings)

Model	The standard Mincer wage model (b/se)	The expanded Mincer wage model (b/se)
Schooling (in years)	0.053(0.01) ***	0.040(0.01) ***
Experience (in years)	0.117(0.03) ***	0.046(0.03) *
Squared experience	- 0.004(0.00) *	- 0.003(0.00)
Gender (Female)		- 0.005(0.13)
Female*Schooling		- 0.024(0.01) **
Female*Experience		0.060(0.01) ***
Migration (1: Yes, 0: No)		0.298(0.13) **
Migration*Schooling		0.028(0.01) **
Migration*Permanent residence at destination		0.138(0.05) **
Wage-employment (1:Yes, 0:No)		- 0.703(0.14) ***
Wage-employment*Schooling		0.028(0.01) **
Wage-employment*Experience		0.039(0.01) ***
Constant	- 0.130(0.08)	0.441(0.16) ***
R^2	0.297	0.455
Prob > F	0.000	0.000

Standard errors are in parentheses.
Note: * p<0.1, ** p<0.05, *** p<0.01

As hypothesized earlier, the introduction of new explanatory variables as an option for treating ability bias or missing variables results in a decline in the returns to schooling and job experiences. As compared with the standard

model, the returns to schooling only decreased by 1.3% points, while the returns to job experiences decreased remarkably by 7.1% points.

Despite no significant effect of the gender on the earnings is found, it is seen the fact that females are more likely disadvantaged in earnings than males on the labor market. After controlling some interactions between gender and schooling and job experiences, the results show that the accumulation of job experiences for females is very important to improve their earnings rather than acquiring more knowledge from schools. Because females, particularly married ones, often tend to choose the self-employment in which is not only required more practical experiences rather than knowledge from schools, but also allow them to do well both household work and market work. In addition, the finding is also shown that females can gain 6% higher RoR to job experience than males do, while, this effect is converse as taking into account for the schooling.

Regarding the migration status, the result suggests that general immigrant laborers at destinations seemingly have more difficulties in life than the local laborers regarding their lower level of the average earnings. However, when we counted on other factors as interactions with the migration status, the result shows that the immigrant laborers still have opportunities to achieve a better level of the earnings. For example, an immigrant having a long period of stay at destination would have better chances to not only accumulate higher educated levels and skills, but also to develop well his social relation. Such accumulations are important for immigrants to find a job with better feelings of working conditions and earnings, as argued by Harris & Todaro (1970) called "a two-stage process" of finding job for immigrants at urban areas.

Relevant to the descriptive statistics above, a higher amount of earnings is among laborers who engaged in the self-employment. This finding is fairly consistent with the empirical results of Borjas (1986) and recent findings by Lofstrom (2002), Liu (2004), Dewen *et al.,* (2010). Empirical findings show that on average the self-employed laborers earned more than their colleagues working in the wage-employment, possibly resulting from typical differences of age and experience. It is also evident that wage-employed laborers can gain a higher level of earnings by accumulating more practical experiences and knowledge from schools. With an improvement of education and skills, they can easily find or shift to another job with higher payoff.

In summary, empirical findings generally confirm the human capital theory that education and job experience explain a significant proportion of difference in the earnings for laborers. The higher the level of education and job experience, the higher the amount of earnings. Not surprisingly, other variables which refer to as individual abilities also play an important role in attributing to significant differences of earnings among laborers on the labor market. Hence, a further analysis using the Oaxaca-Blinder decomposition needs to be explored.

4.2. Earning differntials: Oaxaca-Blinder Decompositions

To investigate empirically the differences in earnings between two specific-groups resulting from the different basis of explained factors and unexplained factors. We first estimate coefficients of two Mincer wage equations in a separate way, also keeping in mind that a possibility of selection bias for each regression model should be considered. These estimated are then used to carry out the Oaxaca-Blinder decomposition.

The estimated results using the Heckman two-step approach to correct the selection bias show that there is no significant effect of the selection bias on identifying determinants of the earnings over the subgroups, namely migrants and non-migrants. Hence, we confidently use the initial formulas as shown in the equation (3) to calculate the decomposition of earnings differences between selected groups.

Table 6 reports the decomposition of the overall earnings differential into the explained and unexplained components in terms of log differentials, monetary values, and proportions. Generally, all two calculations of earnings differences in term of log (Panel 1) and monetary values (Panel 2) have a similar result.

Table 6: Decomposition of the earnings differences by migration and gender

	Panel 1: Controls for log differences in the earnings by		Panel 2: Controls for monetary differences in the earnings by	
	Migration	*Gender (male)*	*Migration*	*Gender (male)*
Prediction				
- Migrants	0.766	0.785	2.15	2.19
- Non-migrants	0.698	0.706	2.01	2.03
Differences	0.068	0.079	0.07	0.08
Decomposition				
- Explained	0.030 (44.1%)	0.053 (67.1%)	0.031 (44.3%)	0.054 (67.5%)
- Unexplained	0.038 (55.9%)	0.026 (32.9%)	0.039 (55.7%)	0.026 (32.5%)

For the logarithmic differences in earnings as displayed in Panel 1, the result firstly presents the mean predictions by groups and their differences. Our calculations reveals that migrants have a higher mean of log(earnings) than non-migrants, this gap between two is 6.8%. In the second step, the earnings differences are decomposed into two parts: explained differences and unexplained differences. The increase of 0.03 indicates that differences in endowments (i.e. schooling and job experiences) account for 44.1% of the earnings gap between two groups. A gap of 55.9% remains unexplained. Compared to the results of the Panel 1, there is a very small change (less than 1%) in components of differences, as we use the original values of earnings for adopting this method (see Panel 2 of Table 6).

As examining gender impacts on the earnings difference, the results shows that males can gain 7.9% more earnings than females on the labor market. Two-third of this earnings gap can be interpreted due to differences in human capital between males and females. One-third remains unexplained, suggesting a given level of earnings discrimination on the labor market.

In short, the empirical evidences support the general economic theory that human capital always plays an important role not only in determining the earnings for individuals, but also in explaining earnings differences among individuals. It is evident that two core factors of human capital are attributable to explain about a half of the earnings differences among individuals on the labor market.

5. Conclusion

This study provides micro-level evidences on links among employment and earning patterns, the surveying data of the MRD migrants at some urban areas of the destinations. A summary of key findings for this work is drawn, as follows.

First one relates to the employment choice, the result primarily confirms the earlier argument of Borjas (1986) that the self-employment seems to be favored to those who are married females, older persons. Two major reasons for this fact are that married female often choose this type of job to ensure that they could do well both house work and market work due to an arrangement of time flexibility. Second reason is that older persons are often presumed to have more accumulations of knowledge and capital to begin their business. In addition, migrants to urban areas are less likely to participate in the self-employment than natives, due to a lack of initial investments and market experiences on destination. Finally, the analytical result also shows the fact that those who have a lower level of human capital have a higher propensity to participate in the self-employment, supporting to several earlier findings for Vietnam (see e.g. Do & Duchene, 2008; Fetzer, 1998; Vijverberg & Houghton, 2002).

Regarding estimates of the earnings, both two models (one for the standard and another for the expanded Mincer wage function) have proven their robustness to explain a positive importance of the human capital in helping individuals to gain a better amount of earnings. This finding is important to suggest policies in reinforcing knowledge and job skills to laborers in general and migrants in particular. Such policies should be designed to create a chance for these individuals to gain a higher level of earnings in future. In addition, basing on the estimated results of Oaxaca-Blinder decomposition it may be known that the endowed factors are not only the most determinants of the earnings, but also attributed to a half difference in earnings between migrant and non-migrants, as well as two-third gap between males and females.

Finally, this work also comes with a given caveat which is likely to be failed to investigate effects of the family background (e.g. the parent's profession, education) on the employment choice and the earnings for individuals, due to no inclusion of these independent variables in the survey. Hence, a high priority for further researches is to include these variables in order to provide a sufficient insight of the employment choice as well as the earning patterns in the urban market.

Notes

1. District 7 is one of the three largest export processing and industrial zones in Ho Chi Minh city, it has an area of 300 hectares. More information is available at *http://www.hepza.hochiminhcity.gov.vn/newscontent.aspx?cateid=554*

2. Monthly earnings are measured in million VND

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