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DECISION MAKING PROCESS OF JOB MOBILITY TO RURAL-URBAN MIGRANT WORKERS: URBAN SURVEY IN THE PEARL RIVER DELTA OF CHINA¹

This paper attempts to investigate the decision making of job mobility of Chinese ruralurban migrant workers. Based on an analytical framework of decision making of migrant workers, two fundamental hypotheses are proposed: on one hand, the better enterprise-internal working environment has a positive impact on decision making of less job mobility; on the other hand, the better external social environment has a positive impact on the decision of job stability as well. Accordingly, the paper uses empirically a multinomial logit model to analyze the determinants to the decision-making of migrant workers on employment choice based on the field survey in the Pearl River Delta of China. The main empirical findings are as follows: in terms of individual characteristics, those migrant workers who are young or single, or possess a higher degree of education may be more likely to choose job hopping. In particular, a higher level of schooling facilitates increasing the probability of switching jobs by about 14.5%. Second, those migrants who carry the heavy burden of looking after the elderly or children are more likely to job hop. Third, those who have low earnings or those in relatively worse living conditions are more likely to choose job hopping. Finally, some factors of external social environment also make a significant impact on the decision-making of job switching.

Keywords: job mobility, rural migrant worker, decision making, China's economy

1. INTRODUCTION

With the development of urbanization since the late 1970s in China, more and more farmers have left rural areas for cities for non-agricultural

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occupations. In particular, farmers from central and western regions of China have been pursuing non-agricultural jobs in the east or coastal cities because of the expectation of relatively higher rewards. Up to 2009, the latest year of available data, the number of rural migrants reached 230 million, 145.33 million of which were outgoing migrant workers during the latest population boom of migrant workers in China (National Bureau of Statistics of China (NBSC, thereafter), 2010). In the meantime, labour markets in the cities have developed sluggishly during the last three decades. A relatively large number of rural labourers have tried to migrate from their homeland to urban areas seeking more interesting opportunities compared to their rural peers. Some of them managed to encourage other fellow villagers to work in the same city when they were earning more there than in the countryside. In this way, more and more farmers went to work in urban nonagricultural sectors and formed one specific group usually called "rural-urban migrant workers". rural-urban migrant workers have experienced substantial These discrimination and infringement of their rights and the majority of them, holding rural Hukou, usually get unequal public service during their stay in urban areas as similar developing economies (Wong, 2011). A large number of them are doing temporary work, and they have little chance of being amalgamated into urban society. Although the authorities are concentrating on the issue and have endeavoured to issue some policies for improving the environment of the labor market, and increasing the degree of openness and flexibility, there is still a significant disparity between rural migrants and native residents in labour markets (Knight & Yueh, 2004; Demurger et al., 2009). Thus, some rural migrant workers are discriminated against by native urban residents, even by their native peers in the same firm doing the same work. These native workers usually have relatively less institutional restrictions, premium welfare and extra benefits of social security than rural migrants (Boucher et al., 2007; Cai & Chan, 2009; Zhang, 2010). In addition, the two groups also have obvious differences in income and other conditions of welfare. Due to the discrimination by urban society, substantial numbers of rural migrants were unable to stay long-term in urban areas or reside there permanently, and so they are in the "merge" of urban areas as "flowing" persons between urban and rural areas (Chan, 2010). Since a large volume of rural labourers are surplus to agricultural sectors, there is hardly any work for them to do in the countryside, so surplus farmers had substantial stimulus to go outside their rural homelands for jobs in urban areas. So for the employers it has not been necessary to worry about their staff recruitment for some years - since the early 1980s. However, few of the

surplus u are likely to remain as a result of swift urbanization, reform and the opening-up, and currently it is nearly moving to the Lewis Turning Point (Park et al., 2007; Islam & Yokota, 2008; Cai & Wang, 2010). Recently, large numbers of employers have had more difficulty in employing labourers than before, especially in some sectors of large scale demand for migrant workers, such as in some cities of the Pearl River Delta, and the Yangtze River Delta. Nowadays, migrant workers tend to have more choices of working or returning to the countryside than before. More and more of them can say no to joining firms in the labour markets. The enterprises lack labourers in cases when the employer cannot offer higher payments that the migrant workers wish to earn. Some workers have become increasingly aware of their own rights under the Labour Law, and many of them are resorting to strong-arm tactics to "persuade" factory owners to give them more money in today's China (China Briefing, 2011).

Why are some firms currently lacking rural migrant workers? What are the key factors for making decision about staying in stable work in firms, changing jobs or going back to the countryside? The above problems are logically linked, which is important for the sustainable development of China's future economy. Facing the economic upgrading and transition of developed urban areas, firms cannot achieve labour costs as low as before, especially in the areas of the Pearl River Delta. In the case of the above scenario lasting for a long time, large firms would possibly have difficulty surviving. Furthermore, the sustainable economic upgrading and structural transition would probably lose fundamental support from the labor force. So as to further understand this serious issue from a rational micro perspective, this paper endeavours to analyze the dominant determinants of job mobility behaviour of rural-urban migrant workers.

In this paper, we firstly formulate an analytical framework for explaining the determinants of well-being to the strategic behaviour of job mobility for migrant workers, and then we prove the significance of well-being from multiple dimensions based on the survey in the cities of the Pearl River Delta of China². The paper is structured as follows: Section 1 is the introduction, Section 2 is the literature review, Section 3 demonstrates the theoretical framework and the basic model, Section 4 presents the data, and reviews previous work on estimating the behaviour of job mobility and explains the

² The Pearl River Delta area is located in the centre of Guangdong Province, where most migrant workers are working compared to other provinces in China. The data of the numbers originates from the Survey and Monitoring Report of 2011 China's Migrant Workers released by the NBSC (in Chinese).

empirical method, Section 5 reveals the empirical results and lastly, Section 6 is the conclusion.

2. LITERATURE REVIEW

How do migrant workers choose to be employed, and what are the potential factors impacting their behaviour? In terms of literature on the behaviour of migration in developing economies, the following three kinds of classical theories are well-known: first, Lewis's dual economy model and its extension (Lewis, 1954; Ranis and Fei, 1961; Fei and Ranis, 1964); second, Sjaastad's academic education effects on migration (Sjaastad, 1962); third, Todaro's probability employment model (Todaro, 1969). From the 1980s onwards, some researchers led by Stark, constructed and developed the new economics of labour migration (NELM) (Stark, 1984 and 1991; Stark and Bloom, 1985; Taylor and Wyatt, 1996). NELM investigated risk and uncertainty, information, and game mechanism within the research field of labour migration, encompassing the factors that determine both labour migration and its outcomes. The theoretical framework and methods of empirical analysis for NELM are extensively cited thereafter in some research on labour migration in developing countries (Taylor, 1995, 1996; Taylor and Adelman, 1996). Some extensions made originated from the NELM in later research (De Haas, 2010). The above literature directs us to a better understanding of the behavior of migration than before. However, few of them concentrate on some concrete choice behavior for those migrants who have already migrated to urban areas. Furthermore, some detailed factors of social environment are important to determine the behaviour of migrant workers, but they were not given enough attention.

In terms of empirical study on Chinese migrants, previous literature concentrated on the reasons about the migrating decision for working between rural to urban areas (such as Lee, 2008; Chen and Hamori, 2009; Meng et al, 2009; Cai, F., 2010), while they paid less attention to migrant workers' strategic behaviour of job mobility from the perspective of the workers' well-being in urban or rural areas. Even if there is little literature concerning the behaviour of migrant workers' decision-making, they still could not reflect the working conditions and the welfare within an enterprise and its detailed impact mechanism. More literature about strategic behaviour can be seen in Zhang (2010), Knight & Yueh (2004), Cai, Du and Wang (2009). These researches showed the general factors of well-being on

strategic behaviour; however they ignored the subdivision of well-being. Some other literature investigated the factors determinant for the behaviour of job mobility for migrant workers, such as the influencing factor of social capital (Solinger, 1999; Bernabè & Stampini, 2009), institutional policy (Meng & Zhang, 2001; Rogaly, 2008; Bazilliery & Moullan, 2010; Sá, 2011; Knight et al, 2011; Wang et al, 2011), the individual characteristics and household features (Knight and Li, 2006; Démurger et al, 2009; Gibson & McKenzie, 2011), the human capital (Wang et al., 2010) and some mixed factors as well (Shi et al, 2007).

In total, the previous studies have made a massive contribution to explaining the determinants of job mobility of migrant workers; however, there is little literature focusing on the marginal effects of the significant factors influencing the rural migrant workers' decision-making of switching jobs in non-agricultural sectors. In addition, less attention was paid to the mechanism of the key factors influencing the strategic behaviour of job switching. According to our latest survey in the Pearl River Delta, we find the substantially significant role of well-being involving income, working conditions and housing security in determining the decision-making of job switching.

We argue that the dominant factors in the choice of job switching for migrant workers are the working conditions, and the welfare that forms their well-being. So the main contribution of this paper is to create a novel theoretical framework for the determinants of migrant workers' strategic behaviour. In particular, the factors of enterprise-internal and enterpriseexternal social conditions are given more attention, except for the factors of human capital and institution mentioned in the previous literature. Furthermore, the paper investigates the key factors, especially these involving the enterprise-internal social conditions, and then forms policy implications for the urban development of China and similar developing economies.

3. THEORETICAL ANALYSIS FRAMEWORK

Traditionally, rational choice theory suggests that individuals tend to make rational strategy to choose their preference for some specific purpose when facing diverse external conditions. In other words, the individuals make choices in order to advance their objectives. The choices have to satisfy various constraints so there is something to adjust to make all these 90 DECISION MAKING PROCESS OF JOB MOBILITY TO RURAL-URBAN MIGRANT WORKERS [...]

choices consistent (Varian, 1997, p. 4). There are similar situations regarding the concrete decision making of choices about job mobility for migrant workers. These migrants tend to satisfy their preferences and maximize their own benefits of working in urban areas in facing multiple options of job mobility. Our theoretical analysis is rooted in the fundamental assumption of rational choice and it extends the theory into a more comprehensive one. The external environment is attributed to some determinants of the decision making on job mobility in our framework, which has less attention paid to it in traditional analysis. The external environment of migrant workers can be divided into two tiers. The first tier is the employment environment within the work unit directly faced by migrant workers, which depends on the average wage level of the work unit and their notion of the enterpriseinternal social environment. The second tier is the external social and policy environment, which greatly depends on the policy orientation and social atmosphere of the society and authorities. The above two tiers of the environment have a common determinant mechanism on rural migrant workers' behaviour. Rational rural migrant workers may make their decisions on employment and mobility according to their own endowments of capability and their judgment on the situation of the external environment.

It is assumed that the two tiers of the environment faced by a migrant worker can be presented by E_1 and E_2 respectively; E_1 represents the interest of employment and environment within the enterprise and E_2 represents the external employment environment created by the society and authorities. The function of E_1 can be presented as follows:

 $E_1 = E_1(w, e)$

where *w* represents the wage provided by the work unit for the rural migrant worker and *e* represents the situation of the relationship between rural migrant workers and other employees in the same work unit. The function of E_2 can be presented as follows:

$$E_2 = E_2(q, j)$$

where q represents the social attitude, especially of the local urban society and authority towards migrant workers' lives and employment, which can be attributed to social environment. The proxy of j represents the situation of the relief of rural migrant workers' difficulties. The above variables become the core factors determining the external environment to migrant workers, which can be presented by the follow formulation:

$$D = D(E_1, E_2, C, H)$$

where D represents rural migrant workers' decision-making on

employment mobility; C represents the capability characteristics of an individual; H represents the characteristics of the individual's household. Finally, the variables of the external environment to rural migrant workers reflecting the determinant mode are shown in Figure 1.



Figure 1. The mechanism of the four dimensions to the determinants of decision-making on job mobility.

Source: authors' own

The frequency of rural migrant workers' employment mobility is relatively low and they even acquiesce in the work unit's illegal actions when the employment environment established among enterprises (E_1) is more beneficial to short-term benefits rather than continuous working in the specific work unit. In other words, D represents the tendency to choose job switching or to keep on working in the current work unit.

According to the above analysis, D's decision-making is determined by C, H, E_1 and E_2 . C and H are relatively stable in the short term. Accordingly, the influence of E_1 and E_2 on rural migrant workers' employment mobility should have more attention paid to it. In our opinion, the impact mechanism of the employment environment to rural migrant workers is diverse in the two tiers of E_1 and E_2 . In the tier of E_1 , the firm-internal relationship affects rural migrant workers' decision-making on employment by their perception

of relative deprivation and providing workers with wage and social welfare³. The employment relationship lays the foundation for the internal environment of enterprises. This relationship is established on the basis of the social interaction of employer and employees or among employees. In particular, the relationship is strongly reflected by the relationship between rural migrant workers and local employees. The migrants may be more sensitive to the relative deprivation compared with the reference group within the work unit when living outside their homeland. A more harmonious working atmosphere may promote rural migrant workers' employment stability in enterprises if rural migrant workers get along well with local employees; rural migrant workers' employment mobility can be strengthened if they do not get along well with local employees because of their feeling of being highly deprived. The relationship of employees getting along well with each other in enterprises can easily develop into a positive social interaction effect, through which it is more likely to increase degree of satisfaction and strengthen the employees' occupation stability; otherwise it is negative to stable work. Traditional economic relative deprivation theory highlights one of the motives of migration is to improve the individual's or household's comparative income position with respect to that of other individuals or households in the relevant reference group (Stark, 1984). On the contrary, the decision making of job mobility for migrant workers is, we believe, significantly determined by the judgment of an individual's relative economic and social status. Furthermore, the migrant's judgment of relative economic and social status depends on social interaction with the peers of the firm. Since a better social environment within an enterprise facilitates positively active social interaction, the former can eventually impact the judgment of relative economic deprivation, which forms a rational strategy of job mobility. Knight and Gunatilaka (2010) gave a similar analysis on the subject of well-being for Chinese migrants in another perspective.

In addition, enterprises are likely to affect rural migrant workers' decision-making on employment by wages and welfare. This influencing mechanism is also developed by the group effect of social interaction, which

³ Stark and Bloom (1985) made the following findings, "People engage quite regularly in interpersonal income comparisons within their reference group. These comparisons generate psychological costs or benefits, feelings of relative deprivation or relative satisfaction", we argue that the effects of relative deprivation also largely influences the decision of job mobility. Because the migrant workers can gain some satisfaction from feeling less relative deprivation compared with the reference group, and they cannot do otherwise.

can be shown empirically as the following evidence. In real conditions, migrant workers face specific benefits involving wages, working and living conditions, which may be divided into two tiers of effects, namely, one is enterprise-internal environment and the other is enterprise-external circumstance. The former covers relative economic interests compared with local peers. The migrant workers can judge their relative deprivation via interactive information on wages among workers. The latter effect is via external information transmission intervening in the comparison of welfare and well-being in the group of migrants. The fundamental hypothesis could be proved to some extent in the following sections.

4. DATA AND EMPIRICAL MODEL

The data source is from the field survey in the Pearl River Delta region of China conducted by the authors and some research assistants. The number of migrant workers accounts for 22.6% (NBSC, 2010) in the Pearl River Delta region, which is the largest number nationwide in China compared to other city metropolis. The survey region can typically show some typical social and economic situations of migrant workers in China. The specific survey location involves the following four cities, Guangzhou, Shenzhen, Zhuhai and Dongguan within the region of the Pearl River Delta since the majority of migrant workers congregate within these four cities. The survey period covers from July to August 2010. We drew upon the methodology of random intercept survey so as to show the conditions as true as possible. First, four survey locations were randomly determined in each of the above cities via screening from district code listings. Second, two sample firms in every district location were subsequently selected by choosing randomly from the firms listings. Third, interviewers managed to visit the firm and interview the migrant workers in the specific firm face to face. Accordingly, we planned to conduct roughly 80 samples in every district. We made tiny adjustments according to the real situation of the survey. Furthermore, we interviewed migrant workers asking some banded choice questions, e.g. the wages and frequency of switching jobs. We designed the questions to reflect the respondents' genuine situation. The interviews included the following aspects: basic information of migrant workers from rural areas and their own households (8 questions), characteristics of employment (9 questions), earnings and living conditions (7 questions), and mental characteristics (13

questions). The sample number of respondents was 1,259 and the valid number that our variables used was 880, such that the valid questionnaire ratio was 69.9 %.⁴

The employment choice of migrants from rural areas in Chinese urban non-agricultural enterprises is represented by the variable y, which is 0 when migrants plan to continue this work, 1 when a migrant worker decides to switch the current job to another, 2 when migrants decide to return to rural areas, 3 when migrants are uncertain. Let x denote a set of conditioning variables, and contain variables like individual, family, enterprise and society factors. Since the probabilities must add up to unity, P(y = 0|x) is determined once we know the probabilities for j = 1, 2, 3. Let x be a $1 \times K$ vector with first-element unity. The multinomial logit (MNL) model has response probabilities (Wooldridge, 2002)

$$P(y = j | x) = \exp(x\beta_j) / \left[1 + \sum_{h=1}^{J} \exp(x\beta_h) \right]$$
(1)

where β_j is $K \times 1$, j = 1, 2, 3. Because the response probabilities must add up to unity,

$$P(y=0|x) = 1/\left[1 + \sum_{h=1}^{J} \exp(x\beta_h)\right].$$
 (2)

The MNL model is best carried out by maximum likelihood. For each i the conditional log likelihood can be written as

$$l_i(\beta) = \sum_{j=0}^{3} \mathbb{I}[y_i = j] \log[p_j(x_i, \beta)]$$
(3)

where the indicator function selects out the appropriate response probability for each observation *i*. We estimate β by maximizing $\sum_{i=1}^{N} l_i(\beta)$.

We use the above multinomial logit model to analyze the behaviour of the migrant's employment choice. The dependent variable is a multinomial employment choice of migrant (value 1, 2 and 3) versus continuing work in the current enterprise (value 0). The employment composition of the

⁴ After the survey, we inspected the samples and conducted some screening on them. Eventually, the valid survey samples refer to those who made complete answers to all the prerequisite questions, which amounts to 880.

migrant's planning of their choice is shown in Figure 2. The independent variables contain four dimensions; they are the individual characteristics, the household characteristics, the working conditions and the well-being of migrants. The definitions of variables, means and standard deviations of variables are shown in Table 1 and Table 2, respectively.



Figure 2. The employment composition of migrant workers to choice (%) Source: author-compiled, based on the questionnaires

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Definitions of variables

	Variable	Definition
The capability	AGE	Age in years
individual (C)	SEX	1 for male, 0 for female
	GRADE	1 for upper middle school degree or technical or vocational degree or higher, 0 for others
The characteristics of	MARRIED	1 for married, 0 for others
household (H)	DRATIO	Dependency ratio
The interest of	MYEAR	Migrant years of experience
employment and environment in the	CHANGE	Times of switching jobs within the last five years
enterprise (E_1)	WHOUR	For how many hours in a day, on the average, a respondent work
	WAGE	Monthly wage (in hundreds of RMB)
	MANUFACTURE	1 for workers in manufacture, 0 for others
	HOUSING	1 for workers whose living quarters is provided by work unit (living quarters are free or lower rent)
The external environment (E_2)	WORKE	1 for good work environment, 0 for others
	Explained variable	
	EMPCHOI	Planning to continue this work=0, Planning to switch job=1, Planning to return rural=2, uncertainty=3

Note: "Uncertainty" responder of migrant workers cannot be clear that they will plan to continue this work, switch job or return rural, when they were questioned in 2010.

Source: authors' own

Table 2

Means and	standard	deviations	of	variables

Variable	Continue the work	Switch the job	Return to the rural	Uncertainty
AGE	26.9466	22.5700	25.8864	23.6638
	(8.2939)	(4.5760)	(8.1190)	(5.7678)
SEX	0.6031	0.5000	0.6364	0.4946
	(0.4911)	(0.5013)	(0.4838)	(0.5005)
GRADE	0.4504	0.6850	0.4546	0.4534
	(0.4994)	(0.4657)	(0.5008)	(0.4984)
MARRIED	0.4580	0.1550	0.3636	0.2581
	(0.5002)	(0.3628)	(0.4838)	(0.4381)
DRATIO	0.8108	0.7957	0.9172	0.7668
	(0.9663)	(0.8785)	(1.0096)	(0.8739)
MYEAR	4.6985	3.1775	5.4375	4.0564
	(3.7121)	(2.6561)	(4.0235)	(3.2661)
CHANGE	1.7366	2.3350	1.9148	2.2972
	(1.5961)	(1.7581)	(1.5761)	(1.7556)
WAGE	14.3321	12.8500	14.1477	12.9122
	(5.7914)	(5.4105)	(5.9074)	(5.2070)
WHOUR	8.2214	8.2800	8.7955	8.3232
	(1.7466)	(1.7253)	(1.7692)	(1.7276)
MANUFACTURE	0.5420	0.5800	0.6818	0.6811
	(0.5002)	(0.4948)	(0.4684)	(0.4666)
HOUSING	0.5954	0.4950	0.3750	0.4881
	(0.4927)	(0.5012)	(0.4869)	(0.5004)
WORKE	0.2901	0.1100	0.0909	0.1041
	(0.4555)	(0.3137)	(0.2891)	(0.3058)
Sample size	131	200	88	461

Note: Quantities in parenthesis are standard deviations.

Source: authors' own survey

5. EMPIRICAL RESULTS

The results of the estimation for quantitative analysis of employment choices of rural migrants are as follows, the coefficient estimates and significance level of each variable are provided in Table 3.

5.1. Individual factors

We examined the variables that indicate the determinants of migrant's individual characteristics to the decision-making of employment choice. It is evident that not only the age and gender but also the factor of human capital, such as the level of schooling, has a significant effect on the strategy of employment choice. However, the effects that these variables show on the determination of employment choice vary among job switching, returning to rural areas and uncertainty. The regression coefficients for the age in years are negative as predicted; however, there was no significant effect on employment choice in favour of returning to the rural areas. Elderly migrants indicate a lower probability of choosing to change jobs and effecting uncertainty, that is, they tend to continue their work only in their current working enterprise because of the higher costs of opportunity in changing jobs. The regression coefficient for the gender dummy is less statistically significant. A higher level of schooling produces a statistically significant result on changing jobs. The results of education are similar with some prior researches (Wang et al., 2010). A longer time of schooling implies a greater learning ability in external society, thereby making it comparatively easier to obtain indispensible employment information. The length of education can also reduce the time for the acquisition of the necessary skills and knowledge in new circumstances of employment. In addition, it is believed that there is a greater probability of being able to obtain higher wages with a greater number of years of education.

5.2. Household factors

The econometric results reveal the effects of household conditions on their employment choice. As expected, compared with the single migrant workers, the marital status of married migrant workers has a negative effect on the decision to give up the current work and choose to follow the other plan. As a married worker, he or she is more likely to be cautious about switching occupation. They usually tend to avoid the risks of job hopping only if they confidently expect to have a better job than before. In the meantime, it also produces a statistically significant result in the other plan. To sum up, there is a trade-off between avoiding risk and earning more.

As the dependency ratio increases, the probability of changing job also increases, that is, migrant workers with a higher dependency ratio have a stronger tendency to job hop so as to get higher wages. These Chinese members of rural households have been intimately linked to each other and they are liable to make a collaborative strategy, despite the linkage becoming weaker in recent years. So those with a greater burden of looking after children or the elderly tend to consistently make more money for their family and for their own use.

5.3. Enterprise-internal social environment factors

Those who have a longer time of work experience, tend to have a higher probability of returning to their rural homeland. The findings are not similar to the developed economies (Lehmer & Ludsteck, 2011). These interesting results may come from the higher psychological cost. These rural migrants cannot reside permanently as their household registrations are less likely to share in public services as much as the local urban residents. So most of them may only target accumulating money or human capital for the future returning to the homeland once they start to work in urban areas. The longer time they work after leaving home, the more they suffer from loneliness. So the majority of the migrant workers are in a condition of "floating". Those who change jobs more often have stronger tendencies to job hop in search of higher earnings under the pressure of family burden, or they are confused about their urban lifestyles. On top of that, the system of separate social security and children's educational rights has existed for a few decades among migrants and local urban residents. People holding rural Hukou find it pretty difficult to gain equal benefits with those holding urban Huou. The rooted reason for the scene of temporary immigration in urban China lies in the Hukou system.

The result shows that the effects of working conditions and well-being are significant for the probability of deciding to work continuously in firms.

As expected, the migrant worker whose wage is higher, has a weaker tendency to switch from the current job to another, however, the coefficients do not show a statistically significant result for employment choices of returning to the rural homeland. Migrant workers with a higher wage may be more devoted to working in the enterprise and they may have more transaction costs once they move to another unit.

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Those who work for longer hours daily will have stronger tendencies to returning to rural areas; however, the coefficients do not reflect a statistically significant result for the employment choice of changing the current job. As our interviews in the four cities show, the migrants are possibly tired of overtime work on weekdays, and some of them are even forced to work extra hours on weekends. Those who work in manufacturing are more likely on average to make a decision of returning to their rural homeland than in other sectors. This reflects the industrial sector effects on the strategic behaviour of migrants. The main reason is probably that the intensity of labour is so high in manufacturing industry that they tend to have relatively more relaxed work than in other industries. In addition, the earnings and welfare vary in different industrial sectors, and these workers are likely to gain the relative perception of being deprived in their economic and social interests compared with other sectors. So the sector effects vary in migrants' decision-making of job mobility.

Those migrant workers whose living quarters are provided by work units, have weaker tendencies to go back to the rural homes. Interestingly, those migrant workers who are in better working environments, have a stronger tendency to continue working in the current enterprise. As expected in the mentioned theoretical hypothesis, enterprise-internal social entertainment shows a positive effect on their decision-making of job switching.

5.4. Enterprise-external social environment factors

Migrants are less likely to switch their current job in more harmonious and friendly working conditions, which reveals the social capital impact on their decision-making of working. Good working conditions can promote the relationship between the migrant workers and their local peers, and then the harmonious interaction comes from the good social environment in the enterprise. Such enterprise-internal social capital accumulation originates from social interactions and the effect may be exemplified within interactions and communication of social networks through the specific transmission mechanism.

Table 3

The plan of employn	nent choices o	of migrant v	workers (multinomial	logit model)
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X7	Switch the job	Return to the rural	Uncertainty	
variable	(n = 200)	(n = 88)	(<i>n</i> = 461)	
CONSTANT	2.1891 **	-0.9982	2.8978 ***	
	(2.3320)	(-0.9298)	(3.6202)	
AGE	-0.0723 **	-0.0289	-0.0611 **	
	(-2.3604)	(-0.9214)	(-2.5835)	
SEX	-0.1280	0.2220	-0.1777	
	(-0.4916)	(0.7019)	(-0.7690)	
GRADE	0.8354 ***	-0.0564	-0.0725	
	(3.1582)	(-0.1818)	(-0.3154)	
MARRIED	-0.6992 *	-0.9462 **	-0.5640 *	
	(-1.7309)	(-2.1303)	(-1.7220)	
DRATIO	0.2997 **	0.2009	0.1464	
	(2.0404)	(1.2336)	(1.0950)	
MYEAR	-0.0073	0.1453 ***	0.0612	
	(-0.1389)	(2.6791)	(1.4658)	
CHANGE	0.2296 ***	-0.0124	0.1693 ***	
	(3.0932)	(-0.1410)	(2.6006)	
WAGE	-0.0413 *	-0.0329	-0.0420 **	
	(-1.8187)	(-1.2192)	(-2.1168)	
WHOUR	0.0237	0.1713 **	0.0382	
	(0.3353)	(2.1420)	(0.6045)	
MANUFACTURE	-0.0903	0.7004 **	0.4314 *	
	(-0.3550)	(2.1836)	(1.9077)	
HOUSING	-0.3881	-0.8743 ***	-0.4791 **	
	(-1.5503)	(-2.9037)	(-2.1824)	
WORKE	-1.3953 ***	-1.3872 ***	-1.3788 ***	
	(-4.3791)	(-3.2085)	(-5.2329)	
Log likelihood	-958.390			
Likelihood ratio test	642.3000***			
Sample size		880		

Notes: Numbers in parentheses are *t*-ratios. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Source: the econometric analysis results

The marginal effect of each variable is shown in Table 4. The stronger marginal effect of the variable is as follows. Those migrants who have an upper middle school degree or vocational degree or higher, have a higher probability of switching jobs than the ones who have lower education levels (14.5 percentage points higher than other choices). On the other hand, those migrant workers who work in manufacturing have a stronger tendency to return to the rural homeland, the probability is 3.9% higher than those who

work in other sectors. Those migrants whose living quarters are provided by the enterprise in which they work, have a weaker tendency to return to the rural homeland, and the probability is 4.3% less than other choices. Those migrant workers whose working environment is relatively better, have a stronger tendency to continue working in the same enterprise, that is the probability of changing their current job, returning to their rural homeland and choosing uncertainty respectively reached 4.1%, 2.0% and 9.3%, which is less than the others.

Combining the average effects with the marginal effects analysis, the empirical analysis identified the above theoretical hypothesis concerning the four dimensions of factors, namely the individual, the household, the enterprise-internal environments, and the external social environment.

	Switch the job	Return to the rural	Uncertainty
Variable	$dP_{j=1}/dX_k$	$dP_{j=2}/dX_k$	$dP_{j=3}/dX_k$
AGE	-0.0041	0.0021	-0.0046
SEX	-0.0044	0.0307	-0.0389
GRADE	0.1454	-0.0170	-0.1112
MARRIED	-0.0302	-0.0384	-0.0034
DRATIO	0.0279	0.0039	-0.0105
MYEAR	-0.0110	0.0094	0.0078
CHANGE	0.0179	-0.0143	0.0142
WAGE	-0.0012	0.0002	-0.0035
WHOUR	-0.0038	0.0122	-0.0026
MANUFACTURE	-0.0781	0.0393	0.0764
HOUSING	0.0091	-0.0426	-0.0231
WORKE	-0.0405	-0.0204	-0.0931

Table 4

Probabilities of changes in employment choice of migrant as a result of small changes in variables

Note: The method for estimating the marginal effect of each variable on the employment choices of migrant has been adapted from Cameron and Trivedi (2005).

Source: the econometric analysis results

6. CONCLUDING REMARKS

In this paper, we examine the urban survey involving migrant workers in the Pearl River Delta areas of China. Our new theoretical framework involves four dimensions revealing the dominant factors in the decisionmaking of employment, among which the enterprise-internal working environment and the external social environment are a new perspective compared with the previous literature. Subsequently, the paper uses a multinomial logit model to statistically prove the main theoretical hypothesis, that is, the individual, household, the enterprise-internal working conditions and the external social circumstance characteristics are clearly demonstrated for the decision-making of switching jobs, returning to the rural home and the uncertainty compared with working continuously in their present firms.

(1) In terms of individual characteristics, those migrant workers who are young or single, or possess a higher degree of education may be more likely to choose job hopping. In particular, a higher level of schooling can help to increase the probability of switching jobs by about 14.5%. In addition, lower wages also force them to job-hop in the pursuit of their interests. Those migrant workers who are in a worse enterprise-internal working environment, are more likely to abandon their occupations. In contrast, those in harmonious and friendly working conditions tend to work continuously in their present firms. The above individual characteristics and their social environment factors have a significant impact on the migrant workers' decision-making of switching jobs, through which the migrants may have better prospects for work in non-agricultural industries of urban areas.

(2) The probability of making an employment choice of returning to the rural homeland (in contrast with working continuously in the present firms) arises when they have worked for a longer time in urban areas, and working longer hours daily. In the meantime, the sector effects also contribute to their decision-making of job-hopping and returning to their homeland, e.g. those working in manufacturing industry, or those whose living quarters are not provided by employers, have a negative tendency to return to their rural homeland.

(3) Those migrants who have more experience of job hopping within the last five years, have a positive effect on the probability of returning to their rural homeland (in contrast with working continuously in their current firm) for rural migrant workers. This conclusion, to some extent, embodies the importance of working experience for migrants' search for multiple jobs in China's labour markets.

(4) The factor of the household features plays a significant role in the decision-making of employment. Married migrant workers have a negative effect on the decision to give up the current work. In addition, with the dependency ratio increasing, the probability of changing job also increases.

Moreover, the findings reveal that the marginal effect of variables

involving *HOUSING* (living quarters provided by employer) and *WORKE* (working environment is better) are significant, that is, those who are provided with dormitories by their employer, have a relatively weaker tendency to return to the countryside. Those who are immersed in a friendly and satisfying enterprise-internal environment, have a stronger tendency to continue working in their present enterprises - the probability of switching jobs and returning to the rural homes is lower. The conclusion reveals that the improvement of the social environment in both internal and external enterprises helps to make their personnel more stable for the enterprises.

Some policy implications may be concluded from the above results. First, the improvement of the social relationship between migrant workers and local peers should have more attention paid to by employers and even by the whole society. In the meantime, the relationships between migrants and their employers are important to the job mobility issue as well. The above two social relationships can be further regarded as social interactions, which is probably the main well-being factor affecting migrant workers' sustainable occupation in urban areas. Therefore some positive and valid training should be conducted by firms or authorities for migrant workers so as to promote their human capital, which is also a good channel for the stability of excellent migrant workers to non-agricultural industry. Finally, more community policies should be conducted for the harmonious relationship between migrants and local residents. In particular, the urban-rural disparity and its associated discriminatory opportunity structure for migrant workers are in existence nowadays (Huo, 2007; Palmer et al., 2011), so the whole society should be cared for not only by the employers and authority, but also by the urban residential community. Such a society could be beneficial for the sustainable economic and social development of China. Other similar developing economies could also be enlightened through the findings and policy implications.

REFERENCES

- Bazilliery, R., Moullan, Y., *Employment Protection and Migration*. 3rd International Conference on Migration & Development, April 2010.
- Bernabè, S., Stampini, M., *Labour Mobility During Transition*, "Economics of Transition", 17 (2); pp. 377-409, 2009.
- Boucher, S. R., Smith, A., Taylor, J. E., Yunez-Naude, A., Impacts of Policy Reforms on the Supply of Mexican Labor to U.S. Farms: New Evidence from Mexico, "Review of Agricultural Economics", 29 (1), pp. 4-16, 2007.

- Cai, F., Demographic Transition, Demographic Dividend, and Lewis Turning Point in China, "China Economic Journal", 3 (2), pp. 107-119, 2010.
- Cai, F., Chan, K. W., The Global Economic Crisis and Unemployment in China, "Eurasian Geography and Economics", 50 (5), pp. 513-531, 2009.
- Cai, F., Du, Y., Wang, M., "Migration and Labor Mobility in China", "United Nations Development Programme: Human Development Reports Research Paper", April 2009.
- Cai, F., Wang, M., Growth and Structural Changes in Employment in Transition China, "Journal of Comparative Economics", 38 (1), pp. 71-81, 2010.
- Cameron, A. C., Trivedi, P. K., *Microeconometrics: Methods and Applications*. Cambridge University Press, New York 2005.
- Chan, K., The Global Financial Crisis and Migrant Workers in China: 'There is No Future as a Labourer; Returning to the Village Has No Meaning, "International Journal of Urban and Regional Research", 34(3), pp. 659-677, 2010.
- Chen, G., Hamori, S., Solution to the Dilemma of the Migrant Labor Shortage and Rural Labor Surplus in China, "China & World Economy", 17(4), pp. 53-71, 2009.
- China Briefing, *Migrant Workers in China Demand More from Employers*, China Briefing, Posted on February 2011.
- De Haas, H., Migration and Development: A Theoretical Perspective, "International Migration Review", 44(1); 227-264, 2010.
- Démurger, S. et al, Migrants as Second-class Workers in Urban China? A Decomposition Analysis, "Journal of Comparative Economics", 37, pp. 610-628, 2009.
- Fei, J. C. H., Ranis, G., Development of the Labor Surplus Economy: Theory and Policy. R. D. Irwin, Inc., Homewood, Illinois, 1964.
- Gibson J., McKenzie, D., The Microeconomic Determinants of Emigration and Return Migration of the Best and Brightest: Evidence from the Pacific, "Journal of Development Economics", 95, pp. 18-29, 2011.
- Huo, X., Rural Migrant Workers' Civilization and Political Participation, Exploration, 109, pp. 41-46, 2007.
- Islam, N., Yokota, K., Lewis Growth Model and China's Industrialization, "Asian Economic Journal", 22 (4), pp. 359-396, 2008.
- Knight, J., Quheng, D., Shi, L., The Puzzle of Migrant Labour Shortage and Rural Labour Surplus in China, "China Economic Review", 22, pp. 585-600, 2011.
- Knight, J., Gunatilaka, R., Great Expectations? The Subjective Well-being of Rural–Urban Migrants in China, "World Development", 38 (1), pp. 113-124, 2010.
- Knight, J., Shi, L., Unemployment Duration and Earnings of Re-employed Workers in Urban China, "China Economic Review", 17, pp. 103-236, 2006.
- Knight, J., Yueh, L., Job Mobility of Residents and Migrants in Urban China, "Journal of Comparative Economics", 32, pp. 637-660, 2004.
- Lee, Chul-In, Migration and the Wage and Unemployment Gaps between Urban and Nonurban Sectors: A Dynamic General Equilibrium Reinterpretation of the Harris–Todaro Equilibrium, "Labour Economics", 15, pp. 1416-1434, 2008.
- Lehmer, F., Ludsteck, J., The Returns to Job Mobility and Inter-regional Migration: Evidence

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from Germany, "Papers in Regional Science", 90(3), pp. 549-571, 2011.

- Lewis, W. A., Economic Development with Unlimited Supplies of Labour, "Manchester School of Economic and Social Studies", 22, pp. 139-91, 1954.
- Meng, X. et al, *The Great Migration: Rural-urban Migration in China and Indonesia*. Edward Elgar Publishing, United Kingdom 2009.
- Meng, X., Zhang, J. The Two-tier Labor Market in Urban China: Occupational Segregation and Wage Differentials between Urban Residents and Rural Migrants in Shanghai, "Journal of Comparative Economics", 29(3), pp. 485-504, 2001.
- National Bureau of Statistics of China, *Monitoring Survey Report for Migrant Workers*, National Bureau of Statistics of China Bulletin, March 19th., 2010.
- Palmer, N., Perkins, D., Qingwen, X., Social Capital and Community Participation among Migrant Workers in China, "Journal of Community Psychology", 39(1), pp. 89-105, 2011.
- Park, A., Fang, C., Yang, D., Can China Meet Her Employment Challenges?, Conference paper, Stanford University, November 2007.
- Ranis, G., Fei, J. C. H., A Theory of Economic Development, "American Economic Review", 51, pp.533-65, 1961.
- Rogaly, B., Intensification of Workplace Regimes in British Horticulture: The Role of Migrant Workers, "Population, Space and Place", 14, pp. 497-510, 2008.
- Sá, F., Does Employment Protection Help Immigrants? Evidence from European Labousr Markets, "Labour Economics", in press, 2011.
- Shi, X., Heerink, N., Futian Qu, Choices between Different Off-farm Employment Subcategories: An Empirical Analysis for Jiangxi Province, China, "China Economic Review", 18, pp. 438-455, 2007.
- Sjaastad, L. A., *The Costs and Returns of Human Migration*, "Journal of Political Economy", 70(5), pp. 80-93, 1962.
- Solinger, D. J., Contesting Citizenship in Urban China: Peasant Migrants, the State, and the Logic of the Market. University of California Press, Berkeley 1999.
- Stark, O., Rural-to-urban Migration in LDCs: A Relative Deprivation Approach, "Economic Development and Cultural Change", 32 (3), pp. 475-86, 1984.
- Stark, O., Migration in LDCs: Risk, Remittances, and the Family, "Finance and Development", 28(4), pp. 39-41, 1991.
- Stark, O., Bloom, D., E., *The New Economics of Labor Migration*, "The American Economic Review", 75(2), pp. 173-178, 1985.
- Taylor, J. E., *Micro Economy-Wide Models for Migration and Policy Analysis: An Application to Rural Mexico*, "Development Center of OECD", 1995.
- Taylor, J. E. (ed.) (1996). Development Strategy, Employment and Migration: Insights from Models, OECD.
- Taylor, J. E., Adelman, I., Village Economies: The Design, Estimation, and Use of Villagewide Economic Models. Cambridge University Press, 1996.
- Taylor, J. E., Wyatt, T. J., The Shadow Value of Migrant Remittances, Income and Inequality in a Household-farm Economy, "Journal of Development Studies", 32, pp. 899-912, 1996.

- Todaro, M. P., A Model of Labor Migration and Urban Unemployment in Less Developed Countries, "American Economic Review", 59, pp. 138-48, 1969.
- Varian, H., How to Build an Economic Model in Your Spare Time [in:] Szenberg, M., Economists at Work. University of Michigan Press, Ann Arbor, MI 1997.
- Wang, Ch., Hu, J., Yu, J., Evolutionary Path of Occupation Choice and Policy Change for Chinese Peasant Households since 1978, "Actual Problems of Economics", 119(5), pp. 314-330, 2011.
- Wang, D., Fang, C., Guoqing, Z., "Factors Influencing Migrant Workers' Employment and Earnings- The Role of Education and Training', "Social Sciences in China", 31(3), pp. 123-145, 2010.
- Wong, L., Chinese Migrant Workers: Rights Attainment Deficits, Rights Consciousness and Personal Strategies, "The China Quarterly", 208, pp. 870-892, 2011.
- Wooldridge, J. M., Econometric Analysis of Cross Section and Panel Data. MIT Press, Cambridge, MA 2002.
- Zhang, H., The Hukou System's Constraints on Migrant Workers' Job Mobility in Chinese Cities", "China Economic Review", 21, pp. 51-64, 2010.

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