Correlation of Personal Factors on Unemployment, Severity of Poverty and Migration in the Northeastern Region of Thailand

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***Abstract*—This study examines characteristics of unemployment and migration of labor in the Northeastern of Thailand, and unemployment problems faced by local workers. Samples used in the study are 455 unemployed workers in Khon Kaen province, that are, 204 male and 251 female workers. The demand for assistance from the state are ranked as follow: demand on employment within the province where they live, working skill development, financial support for private occupation, unemployment compensation money, information about the labor market, helping to find a job in any province, providing financial support for agricultural work, and supporting children's tuition fees. The analysis of the poverty within the unemployed household shows that those households have an average income per capita per month below the poverty line account for 10.1%.Factors that relate to the severity of the unemployment problem are the number of time to be unemployed and household expenditure. Factors that associate with the severity of poverty are educational level, number of unemployed in household and the income prior to unemployment. Factors that relate to demand on permanent job position are age, marital status and income prior to unemployment. Factors that relate to migration are gender, age, household size, household income and expenditure.**

***Index Terms*—Unemployment, poverty, migration, Northeast Thailand.**

I. Introduction

Unemployment and labour migration occurred in the greatest number in northeastern region of Thailand. It was presented by the numerous of the unemployed persons who registered at the department of employment to request assistance from the government and the need to improve capacity in various fields. Furthermore, National Statistical Office did the labor force survey to investigate the unemployed workers who needed to develop capabilities in various fields. It was conducted simultaneously across the country through the period of 1 to 12 of January, February and March, 2011. Data were collected by interviewing household head or member. It found that the Northeast region had the highest unemployment at present [1]. In late 2008 to 2009, the economic crisis and unemployment problem occurred. In 2010, unemployment rate grew up [2]. It caused several side effects such as the higher the demand on labor who graduate secondary school or below, the lower the demand on high graduated labor [3].

Unemployment and labor migration are as a result of the shock effects, which caused by structural changes in the economy. The impact of the economic and social change affect on household level up to the institutional level. At the household level, when family members were laid off, the increasing of household's burden tight on household financial and psychological pressures. The living conditions of families will be worse off. At local level, there are several effects from criminal and law violation problems. Accordance with the national level, the unemployment and migration cause the shortage of local workers, the congestion of urban, the poverty, the investment reduction and fiscal deterioration. The impact level depends on various factors such as economic environment and the effective of labor policies to mitigate the effects that occur in each period. The unemployment problem is important. It can be solved through the implementation of monetary policy, fiscal policy and labor policy together. Therefore, this research also investigates the policy recommendation to solve these problems.

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II. Methodology and Research Area

This research is applied research. The study was carried out by using a questionnaire to interview 455 unemployed workers in Khon Kaen province. Firstly, the descriptive analysis of the characteristic of unemployment, problems, and social and economic impact on the unemployed applied the frequency, percentage, mean and standard deviation. Secondly, the poverty analyzed from the comparison of the average annually per capita household income to the poverty line. Lastly, the hypothesis test of the relationship between personal factors and the severity of unemployment problem, the severity of poverty after being unemployed, the job requirements and the migration. Statistical analysis was used Pearson chi-squared to compare the variance of the sample.

Statistical data of the number of unemployed persons who required for the help from the government classified by province in the northeast of Thailand in 2007 indicated that there were 177,818 unemployed persons who need the aids from government [4]. Among this number, 14,419 persons came from the municipality area and 163,399 persons came from outside municipality area. Khon Kaen province had a greatest number of the unemployed who need help, accounted for 21,440 persons, and followed by Sisaket province, with 17,608 persons, and Ubonratchathani, with 15,916 persons, respectively (Fig. 1). Therefore, Khon

Kaen province was selected as the research area.

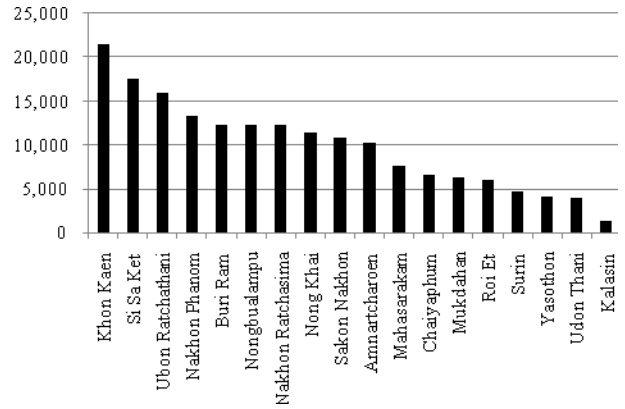

Fig. 1. Number of Unemployed Classified by Need of Help from the Government and by Province in the Northeast by 2007
Source: National Statistical Office, 2007 [4].

III. Descriptive Analysis of Unemployment

The results demonstrate that the samples in the study are 455 laid off workers in Khon Kaen province. The majority of participants (55.16%) are female. Most had never married (52.97%), a certain number (35.82%) are currently married, and the remainder had been formerly married (11.21%). On average, participants are 29 years old, and single (52.97%).Average household size is 4 persons. The education of the mostly unemployed is graduate degree as 48.35%, follow by those who graduate high school as 38.24%, respectively. The 437 unemployed are those who have working experience, only 18 unemployed persons have never worked before. It is 37.8% of the unemployed are those who use to be laid off for at least one time. Most of them do not receive the unemployment compensation money, amount for 77.58%. Within this number, the unemployed mostly work as an operating plant and machinery, account for 23.52%. Type of work of them mostly is the private employee, with 81.76%. It appears that 76.05% of them are mostly voluntary to quit the job, not be laid off. Most of them feel that it is very difficult to find work for 82.64%. Data from the survey display that 23.52% of the unemployed worked as plant and machine operators and assemblers, and 22.64% worked as the elementary occupations (Table I).

TABLE I: Occupation before Unemployment

Occupation before Unemployment	Percent
Plant and Machine Operators and Assemblers	23.52
Elementary Occupations	22.64
Service Workers and Shop and Market Sales Workers	12.53
Clerk	10.11
Technicians and Associate Professionals	7.69
Professional, Technical Workers.	7.25
Skilled Agricultural and Fishery Workers	5.49
Legislators Senior Officials and Managers	4.40
Workers in Transport and Communications.	2.64
Craft and Related Trades Workers	2.20
Unemployment	1.54
Total	100

Considering to the industrial classification of the unemployed, a little more than one fourth of them work on manufacturing sector. The next biggest categories are private households with employed persons, wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods, hotels and restaurants and construction, respectively (Table II).

TABLE II: Industrial Classification of the Unemployed Worker

Industrial Classification of the Unemployed	Percent
Manufacturing	26.37
Private Households with Employed Persons	11.43
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	10.77
Hotels and Restaurants	10.77
Construction	8.13
Extra-territorial Organizations and Bodies	4.62
Education	4.40
Financial Intermediation	4.18
Real Estate, Renting and Business Activities	3.74
Transport, Storage and Communications	3.52
Electricity, Gas and Water Supply	3.08
Agriculture, Hunting and Forestry	2.64
Fishing	1.54
Mining and Quarrying	1.32
Public Administration and Defense; Compulsory Social Security	0.88
Health and Social Work	0.88
Other Community, Social and Personal Service Activities	0.22
Unemployment	1.54
Total	100

The severity of the unemployed worker's problem, the poverty and the need on employment are ranked at high level (Table III). Source of fund of the unemployed, who has money shortage are borrow from informal system, Sell, Pledge, mortgage assets, and borrow from bank (Table IV).

TABLE III: Severity of the Unemployed Worker's Problem, the Poverty and the Need on Employment

Problem, Poverty and Need on Employment	Mean	Std. Deviation
Severity of the Unemployment Problem	4.32	0.82
Severity of the Poverty Problem	4.08	0.90
The Need on Future Employment	4.37	0.90

TABLE IV: Source of Fund in Case of Income Shortage

Source of Fund in case of Income Shortage	Percent
Income Cover with Expenditure	32.09
When Income Shortage, Source of Fund from:	
Informal Loan	16.92
Sell, Pledge, Mortgage Assets	12.31
Bank and Financial Institution Loans	10.33
Family Savings	9.45
Own Savings	8.57
Relatives Loan	8.13
Others: Unemployed Compensation Money	2.20
Total	100

When analyzing the family finances before and after unemployment, nearly a half of the unemployed families express the opinion that income has no change, while the expenditure has increased. About the adequacy of family income, a few (12.53%) feel family income is enough, but 32.31% of them think that family income are not enough. Note to the family's debt, it is not change after unemployment and the ability to repay debt as well (Table V).

Mentions to the attitude of unemployment, the respondents give the significance on the cause of unemployment such as

economic recession, migration, labor age, production demand, wage, demand on labor, labor's qualification, freely of labor movement (Table VI).

TABLE V: COMPARISON OF HOUSEHOLD'S INCOME, EXPENDITURE AND FINANCE BEFORE AND AFTER UNEMPLOYMENT

	Comparison of Pre and Post Unemployment (Percent)		
	Increase	**Not Change**	**Decrease**
Income	18.68	**45.05**	36.26
Expense	**47.47**	42.86	9.67
The Adequacy of Finance	**12.53**	55.16	**32.31**
Debt	33.41	**59.56**	7.03
Ability to Repay Debt	4.4	**65.49**	30.11

TABLE VI: ATTITUDE OF UNEMPLOYMENT

Attitude of Unemployment	Mean	Std. Deviation
Economic Recession Cause Unemployment	4.11	0.97
Labor Migration from Rural to Urban Cause Unemployment	3.99	0.94
Older Labor has Higher Risk of Unemployment	3.96	0.99
Lower Demand on Production, Lower Demand on Employment	3.86	0.94
Low Wage Give Low Incentive to Employment and Then Lower Employment	3.82	1.07
Employer is not Hire More Labor, Which Cause Some Labor Stop Looking for Work	3.82	1.01
Labor's Qualification is not Match to the Need of Employer	3.81	2.13
Some Area Has Oversupply of Labor, Some Area Has Excess Demand on Labor, But Labor are Limitation of Movement	3.80	0.91
Woman with Little Child Have Opportunity to be Refuse to Work Acceptance than The Single One	3.80	1.04
Business/Factory Move from Local Area Cause Unemployment	3.77	1.05
The Need of Helping Family Work Lead to Not Participate in Labor Market	3.75	5.17
Technological Progress Cause Unemployment	3.72	1.06
The Wife who has High Income Husband has unnecessary to Join Labor Market	3.64	1.08
Women Take More Risk of Unemployment than Men	3.50	1.07
Rich Family Labor Has No Need to Find Job	3.37	1.18

Primary factors in determining employment are domestic price, tax revenue, government expenditure, and saving of commercial bank, respectively (Table VII). Firstly, the increasing of domestic price creates the incentive for real economic sector to increase the employment position to increase the production, then the unemployment will decline. About tax revenue, the Increasing of tax collection will reduce private sector's spending. When goods cannot all sales, business will reduce the production, and then it causes of unemployment. For government expenditure, when government has the higher spending, the economic will be stimulated, and then the unemployment will decline. Note to the higher net income from aboard lead to the better trade balance and balance of payment, higher economic growth, and lower unemployment. Lastly, the higher foreign direct investment is as a result of the higher the domestic employment by multinational enterprise and the lower the unemployment.

The impact of unemployment that present at the significance level comprise of lack of liquidity, suffering on cost of living, disorganizing on family problems, receiving the unwilling future employment, and being under pressure, stress, and lack of self-confidence (Table VIII). However, the adjustment of them after unemployment, they mostly emphasis on adjusting themselves to be more patient, confronting with the problem, endeavoring to apply for work, looking for extra work, saving the spending, assenting the underemployment work, respectively.

TABLE VII: DETERMINANT ON EMPLOYMENT

Determinant on Employment	Mean	Std. Deviation
Domestic Price	4.32	0.86
Tax Revenue	4.08	1.02
Government Expenditure	3.71	1.08
Commercial Bank Saving	3.58	1.21
Net Income from Aboard	3.49	1.15
Foreign Direct Investment	3.38	1.32

TABLE VIII: IMPACT OF UNEMPLOYMENT

Impact of Unemployment	Mean	Std. Deviation
Lack of Financial Liquidity	4.29	0.83
Endurance on High Cost of Living	4.32	0.85
More Family Problem	3.88	1.01
The Unsatisfied of Future Work	3.85	1.01
The Pressure, Stress, Lack of Self-Confidence	3.83	1.02

The priority of demand for assistance from the state are ranked as follow: demand for employment within the province where they live, working skill development, financial support for private occupation, the unemployment compensation money, information about the labor market, helping to find a job in any province, providing financial support for agricultural work, and supporting children's tuition fees (Table IX) .

TABLE IX: THE DEMAND FOR STATE ASSISTANCE

Demand for Assistance	Mean	Std. Deviation
Working Position at Hometown Province	0.56	0.50
Improving Skill	0.55	0.50
Financing for Self-employed	0.55	0.50
Unemployment Compensation Money	0.55	0.50
Providing Information about Labor Market	0.50	0.50
Working Position in any Province	0.38	0.49
Supporting Fund on Agriculture Work	0.35	0.48
Supporting on Tuition Fee	0.32	0.47

IV. THE POVERTY WITHIN THE UNEMPLOYED GROUP

Refer to (1), the analysis of poverty among the unemployed present that there are 46 out of 455 persons, whose household income per month less than the poverty line. A poverty line of the Northeast in 2010 was equal to 1,583 Baht /person/month [5]. The poverty ratio is equal to 0.1. It infers that 10.1% of the unemployed persons are poor.

$$P_0 = N_p / N = 46/455 = 0.1010989 \quad (1)$$

P_0 is Ratio of Poor Household
N_p is Household that has Income below Poverty Line
N is Total Population

For an analysis of the balance or the adequacy of current income and expenses, the research outcome appears that

more than a half of the unemployed households have average income higher than average expenditure (Table X).

TABLE X: ADEQUACY OF CURRENT INCOME AND EXPENSES

Adequacy of Income and Expenses	Frequency	Percent
Unemployed Household that has Average Income Less than Expenditure per Month per Capita	195	42.86
Unemployed Household that has Average Income More than Expenditure per Month per Capita	260	57.14
Total	455	100

V. THE RELATIONSHIP BETWEEN PERSONAL FACTORS AND THE SEVERITY OF THE UNEMPLOYMENT PROBLEM

The null hypothesis test on the relationship between personal factors and the severity of the unemployment problem is different personal factors of the unemployed persons have no difference impact on the severity of the unemployment problem.

The result of the Chi-square test introduce that personal factors, which are, the experience or number of times be unemployment and household expenditure are the factors that have a significance level of less than 0.05, which give the result of rejecting null hypothesis, and accepting alternative hypothesis. Both factors are correlating with the severity of the unemployment problem at the significance level of 0.05.

Besides, the result of the F-test denotes that the experience or the number of time be unemployed has been correlated with the severity of the unemployment problem due to the significance level is less than 0.05. It will be reject H_0 (accept H_1) if F> F crit. In this case, F crit = 2.37 at $df1 = 4$, $df2 = 450$ and $\alpha = 0.05$, the experience or number of times use to be unemployment has $F = 2.8317$ which is greater than 2.37, so reject H_0. It can be said that number of time be unemployed influences on the severity of the unemployment significantly at the 0.05 level. Whereas the other variables have the significance greater than the statistical significance set at 0.05 such as gender (0.0894 <0.05), so it decided to accept the key assumptions H_0. So, difference gender of the unemployed in the province has no different on the severity of the unemployment (Table XI).

TABLE XI: THE RELATIONSHIP OF PERSONAL FACTORS AND THE SEVERITY OF THE UNEMPLOYMENT

Severity of the Unemployment Problem	Pearson Chi-Square		F-test	Sig.
	Value	Asymp. Sig. (2-sided)		
Gender	8.06	0.09	2.03	0.09
Age	13.54	0.33	0.19	0.94
Marital Status	11.01	0.81	1.64	0.16
Educational Level	14.30	0.58	0.49	0.74
Household Size	7.42	0.83	1.04	0.39
Number of the Unemployed in Household	23.31	0.11	1.75	0.14
Experience/Number of Times be Unemployment	47.62	**0.04**	**2.83**	**0.02***
Income Prior to Unemployment	24.17	0.24	1.54	0.19
Household Income	23.36	0.10	0.92	0.45
Household Expenditure	28.49	**0.03**	1.97	0.10

VI. THE RELATIONSHIP BETWEEN PERSONAL FACTORS AND THE SEVERITY OF POVERTY AFTER UNEMPLOYMENT

It is hypothesized that personal factors, that are gender, age, marital status, education, household size, number of unemployed member in household, number of time be unemployed, income before unemployment, household income and expenditure, has become increasingly accepted as a justification for severity of poverty. The personal factors that have the correlated with the severity of poverty are education level, number of the unemployed in household, and income before being unemployment (a result of the Chi Square test), while age and educational level of the unemployed have the correlated with the severity of poverty (result of F-test). The education variable is significant, which consistent with both test (Table XII).

TABLE XII: THE RELATIONSHIP BETWEEN PERSONAL FACTORS AND THE SEVERITY OF POVERTY AFTER UNEMPLOYMENT

Severity of Poverty after Unemployment	Pearson Chi-Square		F-test	Sig.
	Value	Asymp. Sig. (2-sided)		
Gender	2.84	0.58	0.71	0.59
Age	17.16	0.14	**2.59**	**0.04***
Marital Status	15.51	0.49	0.49	0.75
Educational Level	29.14	**0.02**	**2.61**	**0.04***
Household Size	11.71	0.47	1.55	0.19
Number of the Unemployed in Household	55.54	**0.00**	2.21	0.07
Experience/Number of Times be Unemployment	33.81	0.38	0.79	0.53
Income Prior to Unemployment	38.50	**0.01**	0.95	0.44
Household Income	14.37	0.57	0.42	0.79
Household Expenditure	16.95	0.39	0.66	0.62

VII. THE RELATIONSHIP BETWEEN PERSONAL FACTORS AND THE DEMAND ON EMPLOYMENT IN THE FUTURE

It is hypothesized that personal factors have the effect on future demand on employment significantly.

Factors that have correlate with the personal factors and the needs of future employment are age, marital status and income prior to unemployment (results of chi square test). Other factors have the significance level greater than 0.05, so the null hypothesis is accepted and the alternative hypothesis is rejected. In summarize, these other factors have no correlate with the demand on future work.

By the way, the comparison of personal factors and the needs of future employment by using one-way analysis of variance (ANOVA) indicate that sex, age, household size and the number of times be unemployed have the correlated with the needs of future employment. Its significance level is less than the statistical significance value at 0.05. This case F crit = 2.37 at $df1 = 4$, $df2 = 450$ and $\alpha = 0.05$. Gender ($F = 2.3889$), age ($F = 2.4195$), household size ($F = 2.4867$), and number of times be unemployment variables ($F = 3.4425$) have F value more than 2.37. So, we reject H_0 (accept H_1) since $F > F$ crit.

Hence, gender, age, household size, and number of times be unemployment variables have the correlate with the need on future work differently at the statistically significant level of 0.05. The variable that is consistent with both tests is age variable (Table XIII).

TABLE XIII: THE RELATIONSHIP BETWEEN PERSONAL FACTORS AND THE DEMAND ON EMPLOYMENT IN THE FUTURE

Demand on Employment in the Future	Pearson Chi-Square		F-test	Sig.
	Value	Asymp. Sig. (2-sided)		
Gender	9.46	0.05	**2.39**	0.05
Age	26.20	**0.01**	**2.42**	**0.04 ***
Marital Status	28.86	**0.02**	2.00	0.09
Educational Level	13.00	0.67	1.51	0.20
Household Size	13.58	0.33	**2.49**	**0.04 ***
Number of the Unemployed in Household	15.45	0.49	1.08	0.36
Experience/Number of Times be Unemployment	35.22	0.32	**3.44**	**0.01 ***
Income Prior to Unemployment	44.54	**0.00**	1.70	0.15
Household Income	10.71	0.83	1.54	0.19
Household Expenditure	9.56	0.89	0.84	0.50

VIII. THE RELATIONSHIP BETWEEN PERSONAL FACTORS AND THE DEMAND ON MIGRATION

It is hypothesized that personal factors of the unemployed workers influence on the demand on migration in the future of the unemployed workers differently. The correlation between personal factors and the needs of migration in the future represents that gender, age, household size, household income and expenditure are significant (Table IX).

TABLE IX: THE RELATIONSHIP BETWEEN PERSONAL FACTORS AND THE DEMAND ON MIGRATION

Demand on Migration	Pearson Chi-Square		F-test	Sig.
	Value	Asymp. Sig. (2-sided)		
Gender	4.74	**0.03**	**4.77**	**0.03 ***
Age	12.29	**0.01**	**11.65**	**0.00 ***
Marital Status	5.16	0.27	0.67	0.41
Educational Level	1.77	0.78	0.00	0.94
Household Size	11.40	**0.01**	1.34	0.25
Number of the Unemployed in Household	5.13	0.27	1.13	0.29
Experience/Number of Times be Unemployment	14.38	0.07	**7.40**	**0.01 ***
Income Prior to Unemployment	7.30	0.20	**3.80**	0.05
Household Income	27.71	**0.00**	**23.56**	**0.00 ***
Household Expenditure	19.23	**0.00**	**14.34**	**0.00 ***

IX. POLICY RECOMMENDATIONS

The findings have important implications for policy recommendation. Cite to the young unemployed worker, most of the unemployed workers age between 26-30 years, followed by the age 21-25 years. They mostly graduate bachelor degree with 48.35% and high school with 38.24%, respectively. To implement the policy to solve the unemployment among the high education worker, the government should expand public organizations and academic departments to reduce the number of unemployment and the problem of brain drain from the young workers migration. Discussing about working experience, most of the unemployed have been working less than five years. It indicates that experience is a key part in making decisions on employment. The solving of the unemployment can be done by carried out the training courses to increase knowledge and skills to meet the needs of employer and to increase their chances of better employment in the future. According to labor welfare arrangement and unemployment compensation money provision, the study signifies that the unemployed mostly do not receive it. It may because the scope of unemployment insurance is not covering the informal workers. Incidentally, among those who received the compensation, they express the opinion that it is a little money comparing to the high living cost. Therefore, government should pay more attention on the informal workers and consider of the improving of the compensation adjusting to the economic and social change.

Once more, the unemployment problem solving should be reviewed to various causes, which are as follows: 1) a temporary solution of unemployment problem solving may do by providing information to workers and employers or held the appointment for the workers and employers find each other in labor market, 2) the issue of seasonal unemployment, this labor groups should be encouraged to do other tasks during the wasting time of no farm activities, 3) to solve the problem of unemployment due to changes in economic structure and technological change, the training and practicing of workers to be able to switch themselves to work in the industrial sector, instead of agricultural sector. Moreover, government can impose the tax if that particularly technology is unnecessarily use. The technology can be substituted labor in case of labor shortage.

In addition, mention to monetary and fiscal policy, it should be adjusted to reflect economic conditions, such as monetary policy, the government should use financial measures to increase the amount of money circulating in the country, which will result in lower interest rates, higher investment and productivity, and then higher employment growth. Talking about the fiscal policy, government should increase spending and reduce tax rates consist to economic conditions to stimulate production, exports and consumption, which will give the result of higher employment. Finally, mention to education policy, government should set the education plan for people, especially those in this study age and determine the educational structure suit to the country's economic structure, meets the needs of the market, and the need of the country.

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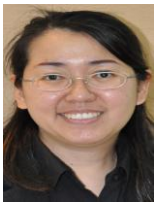

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