Factors Affecting Free Labor Movement Amongst Rubber Industry Workers Within the ASEAN Economic Community-AEC

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ABSTRACT

The purpose of this study was to determine the variables of the ‘factors affecting free labor movement amongst rubber industry workers within the ASEAN economic community-AEC’. As a global leader representing nearly 40% of the world’s total rubber exports, Thailand has continued to expand both its areas of cultivation and the need for labor across the industry. The world’s demand for rubber is increasing steadily with the estimation of demand to be 31.7 million tons in 2020 compared to 11 million tons in 2011 (AEC, n.d.). The rubber industry in Thailand is of economic and social importance because of its production value, the revenues from export and the employment in this sector. About six million people are involved in rubber plantations (TRA, 2007), whereas about 0.6 million people work in rubber industries. As domestic labor becomes more and more difficult to obtain due to the increases in both cultivation and production, migrant workers are often necessary to employ to meet the shortfalls within the Thai rubber sector. As such, the lack of skilled labor results in higher production costs and creates a competitive disadvantage in the global arena. Therefore, government labor policy and workers’ quality of life are important factors that will contribute to reducing the shortage of labor in the rubber industry. Additionally, the rubber industry needs to develop new knowledge which leads to innovation and increases the Thai rubber industry competitiveness.

Key words: Labor movement, industrial relations, government labor policy, life quality

INTRODUCTION

The world’s natural rubber production continues to grow with Thailand being the world’s largest producer and exporter of natural rubber, accounting for about one-third of world supply. The country’s rubber production has more than doubled from 1.6-3.8 million metric tons in the past two decades, about 90% of which is for export (Chomchuen, 2013).

Today, Asia is the main source of natural rubber, accounting for about 94% of output in 2005. The three largest producing countries, Thailand, Indonesia and Malaysia, together account for around 72% of all natural rubber production (Listiyorini, 2010). Additionally, Vietnam over the past 5 years has shown a steady increase in production and in 2011 had attained a 7% market share.

In parts of Thailand which is the main global producer of rubber, smaller, family owned rubber growers planted more than 90% of the retail market with a steadily rising output (Fig. 1).

In recent years, Thailand’s rubber production was about 3.52 million tons or about 34% of global output. Research indicates that Thailand’s per acre yield over the past 5 years has continued to decline from the previous period.
Fig. 1: Thailand’s natural rubber output/exports

Data not available for 2010 exports
Sources: Association of natural rubber producing countries, Thomson Reuters
Reuters graphic/Christine Chan

Fig. 2: Global rubber consumption

However, annual global rubber production is estimated at 11.0 million tons, with about 70% being consumed by five main countries/regions which include China, India, U.S., Japan and Europe (Fig. 2). And according to 2013 year of end reports from China, Chinese imports for rubber hit 2.47 million tonnes which was a 13.5% rise from 2.18 million in 2012. China which continues to be the world’s largest user of rubber, imported a record 350,000 tonnes of the material in December, a nearly 67% year-on-year surge as traders snapped up shipments from Thailand after Thailand temporarily removed a rubber export tax.

Thailand which is also a major global tire manufacturer, had a yield of approximately 3.86 million tons in 2013 with 13% being used for domestic production while 83% was allocated to export processing (Fig. 1 and 2). Gross revenue from exports of rubber and rubber products reached more than six billion baht per year ($USD 182 million).
Fig. 3: Rubber value Chain in Thailand’s lower South, Department of Economics, Thammasat University, Thailand

Fig. 4: Thailand’s natural rubber value Chain

In Thailand, rubber is grown mostly near the south (Fig. 3) near the equator in two main provinces, Surat followed by Songkhla. This region has over 1.52 million hectares of rubber plantations and is the location rubber processing industries.

Thailand’s upstream rubber industry includes the production of raw natural, while mid-stream to downstream includes: Rubber latex products by middle class entrepreneurs as well as raw rubber, ribbed smoked sheet, Technically Specified Rubber-TSR, latex or Concentrated Latex 60% DRC and crepe rubber which is used as raw material for the manufacturing industry (Fig. 4).
Fig. 5: Top 5 rubber producing countries

In the past, Thailand has been expanding its cultivation especially, rubber. Yields are increasing and raw rubber processing plants to accommodate most existing output have been built located on the rubber plantations, mostly in southern and eastern Thailand (Sri Varin and Kongiarean, 2008).

Thailand is among the major exporters in the world rubber market which enjoys successful exports to major export markets namely China, Japan and Malaysia (Fig. 5). Today, Thailand is world’s largest rubber exporter which accounted for 40% world’s total rubber exports (AEC, n.d.). ASEAN countries cover the largest area of rubber cultivation, production and export, with 60% of the world’s natural rubber cultivation area been possessed by Thailand, Indonesia and Malaysia. In consistent with the land usage, the three countries together produce 7.27 million tons of natural rubber, accounting for 68% of the world production (10.95 million tons). Vietnam is another potential rubber producer with annual production of 873,000 tons. If including Vietnam, the four core rubber producers in ASEAN contribute over 74% of the world natural rubber.

For entry into the Asian Economic Community (AEC) in 2015, NESDB (2012) identified the importance of the ASEAN economic community which is to provide the population of the member countries increased trade, better communications with easier access and ability to compete with other global trade blocs and regions. A single market and production base which is focused on the movement of goods, services, investment, capital and skilled labor between them freely is also needed.

The free movement of skilled labor is contained in the preliminary agreement; ‘Mutual Recognition Arrangement-MRA’s in which seven major professional fields focused on property, workforce and talent is detailed including engineering services, nursing, architectural services, surveying qualifications, medical practitioners, dental practitioners and accountancy services (Table 1) which will start in 2015.
Officials foresee Thailand becoming a tourist center and center for agricultural production. Manufacturing industries as well as service industries such as health services, tourism, transport and logistics will expand as well.

ASEAN integration will lead to better cooperation amongst countries and provide significant impetus in five sectors, including goods, services, investment, capital and skilled labor for the liberalization of labor mobility will take place fully in the year 2015. Labor movement agreements are focused on professional and specialized labor or other skills described in the ASEAN mutual recognition agreement specification or standard in each profession.

However, the impact of opening trade in services liberalization does not cause a positive impact on workers in the industry. It could cause instability issues in the occupation of unskilled labor and increase the income and welfare gap between workers with different skill levels, as well between workers in different types of industries. For workers, the risk of being unemployed is rising and it is important to come up with certain programs to assist workers in acquiring new jobs. Unskilled workers over 40 years of age would have the greatest difficulty in maintaining their existing jobs and in searching for new ones as well as unskilled workers with minimum education (Teerana et al., 2001).

This is consistent with study by Saraswooth Paithoonpong, Academic Dean of the TDRI (2013), who argues that the problem of the labor market in Thailand is that it is imbalanced in market structure, both lower and upper levels, both in terms of quantity and quality, that is, a shortage of skilled labor both primary and secondary. However, even though there is a surplus in labor at higher levels, these individuals do not meet the higher, ASEAN standards for quality and performance but overtime it is hoped that the ASEAN community can help lift up this group to a higher performance and quality standard.

The rubber industry experiences the same problems as elsewhere in Thailand and as a global leader in production and processing of rubber must have a competitive advantage on the world stage. The potential for upstream to downstream production and processing is excellent as the amount of average trade with ASEAN countries between 2001-2010 showed an average trade value of 53,656.26 billion baht, export value of 48,680.38 billion baht and a trade surplus of 43,705.07 billion baht.

The Revealed Comparative Advantage-RCA is up to 5.47 which indicates the likelihood of opening agreements a Free Trade Agreement-FTA because Thailand has an abundance of raw materials and potential entrepreneurs, companies, including the world’s largest tire manufacturers who are based in the country.

In a report dated 2003, the rubber industry had a worker shortage of 89,150 and was expected to increase to 37,320 by the year 2009. Additionally, the industry’s need for science and technology professionals has increased on the average to 268 individuals per year.
To increase the qualitative importance of manpower, the rubber industry needs to create value-added services for its industrial workers in the processing end (DoSD, 2005). Due to the increasing demand for workers, the rubber industry has more and more depended on migrant workers. Consequently, the migrant workers have higher labor costs due to their being moved frequently resulting a lack of skilled labor resulting in higher production costs and the loss of competitive disadvantage.

Conceptual development

Labor mobility: Although, the 2015 ASEAN integration date, with its promises of free labor movement sound good, the reality is it will be much harder to accomplish then envisioned. Thai workers could benefit but they need to learn how to take advantage of it (TDRI, 2013).

Studies by Shatragon (1980) found that labor mobility between countries is driven by domestic workers moving out of the country and the factors which attract these workers to other foreign countries includes:

- **Unemployment:** When unemployment is high, workers can’t find jobs within their own country. Additionally, when underemployment exists, there is a labor surplus which results in workers being unable to find positions that matches their abilities. Both contribute to workers searching elsewhere outside their country.

- **Lower wages compared to abroad:** Another reason for employment migration is foreign countries often pay higher wages for the same service provided.

- **Lack of incentives for career advancement:** When workers have gained experience and expertise within their occupation or profession and there appears to be no opportunity for professional advancement, often times workers will look outside their own country.

- **Unsuitable human resource policies:** Manpower planning policies are often times not appropriate and not balanced for the jobs required. Underdeveloped countries do not have the manpower development planning and lack a better balance between labor personnel, causing some workers to become excess which contributes again to workers seeking out foreign employment opportunities.

- **Social and political factors:** Some workers seek work abroad due to political influences and social prejudice.

Dechpeaisarn (2004) studied “The Impact of Laotian Migrant workers, Mukdahan Province” and found that the push factors were poverty, low wages and high rates of unemployment forcing the moving out of the country. And the pull factors were high wages, career progress opportunities and the shortage of workforce in Thailand’s Mukdahan Province. In the migration process, 60% of the Lao labor migrates by their own will. Most of them had origin in Khantaburi District in Laos and travelled for 1-2 two h for a non-stop journey and most them came into Mukdahan province by escaping across the Mekong River. The Lao laborers were picked up by family members in Thailand not going through immigration of any form effectively becoming illegal workers.

The economic impact on Mukdahan province was the reduction of unemployment, more variety in the selection of workers by employers and the reduction of the production cost due to the low wages of Lao illegal laborers.
This is consistent with Yodtuga (2003) study ‘Labor movement in Latex industry, a case study in Sadao, Songkhla Province’ which showed that most of the laborers working in the latex industry were male, 26-35 years old, married, Buddhist and had completed high school. Most lived in private accommodations which were subsidized by the plant. Most laborers had no savings or loans and if additional funds were needed, borrowed the money. Most facilities had TV however. The main factors that influenced labor movement were dependent on income, the environment and work safety.

In addition, the study found that the workers attitudes to changing work were positive because of higher income than their previous Laotian employer. The impact of labor movements is both positive and negative. For the industry, there are problems in the cost of production, opportunities cost, time and efficiency in planning production. But laborers are positive due to the higher income and better social welfare conditions.

Thanapauge (2012) study of the “View of new generation labors in Northeast of Thailand towards migrating to working abroad, in case of Khon Kaen Province” found that the majority were born in the province, were single males, with a mean age of 19.84 having only a secondary school education. Those who lived in Khon Kaen city had a average family income per month of 7425.17 THB. Each family consisted of an average of 4.76 people. Family workers averaged 2.18 people. Of the sample group, 61.90% want to move abroad, especially Taiwan and Korea.

Factors influencing the decision to migrate abroad for work included. Sex, place of birth, current residence, occupation of family, number of workers in family, a member of the family who has worked abroad and a relative who is working abroad. The main reason for the desire to work abroad was higher wages and expectations of gaining experience and new knowledge.

**Government labor policies:** Now in Thailand, there is an increased need for workers in higher quantities, in particular, workers in the agricultural sector and lower levels. During the past 0 years, Thailand has needed foreign workers in a higher proportion to the labor force to replace the working class positions such as maids security, construction, etc. which includes over 3 million people (DoE, 2010). Both legitimate and illegal foreign has increased in Thailand in all sectors of the economy.

Since 2004, the Thai government cabinet has to approve resolutions for foreign workers throughout the system that organizes workers and registers them for control to meet the demand for foreign laborers. Thailand has also opened negotiations with these bordering countries of foreign workers to help with the management and standards. Additionally, Burmese, Lao and Cambodian aliens need to change their statue from illegal to legal (DoE, 2007).

Thailand has laws relating to the management of foreign workers, including several editions of the, (1) Immigration act (2009), (2) Working of azlien act (2008), (3) The foreign business act, (4) Foreign business act, (5) Define career and (6) Promotion professional prohibition act and for Investment. Industrial Estate Authority of Thailand Act Special Act for export (EPZX) and Trafficking Act (Sciortino and Punpunng, 2009).

The management of labor laws related to patents. Agencies and officials have to make a lot involved. Thereby affecting the management, law enforcement and legal practice as to effectively manage the work of foreigners working in Thailand is the mission of the Employment Department under the alien act of 2008 with operations in both the central and regional authorities.

Working Group approval Of aliens in system and service visas and work permits: One stop service Employment Office Bangkok Area Division, 1-12 importing foreign workers to organize. The units operate in regional including 75 provinces Provincial Employment Office (Moonstan et al., 2010).
**Labor demand:** Thailand has the ability to compete at the international level and one of the key factors is Thailand’s need to have a quality labor force with highly skilled workers with high productivity, if it wants to rise to its production capacity. But currently labor productivity is not in a sufficient condition in Thailand due to the lack of quality assurance labor mobility in the other cannot use the full potential and/or labor market with adaptive mechanisms of wage rates that are unfair, unreasonable in view of the employer and the employee.

Most businesses in the supply of labor find it difficult to provide overall labor resulting in labor shortages. Workers with basic or lower secondary education is high, especially in large business sectors including textiles/apparel, leather, electronics and electrical, food and beverage, rubber and plastic products and the construction industry.

Research by Lathapipat and Chucherd (2013) in the study “Labor market functioning and Thailand’s competitiveness” that the Thai labor market had undergone immense structural change during the economic boom decade prior to the 1997 economic crisis. Growth-enhancing structural transformation contributed greatly to high rates of labor productivity and economic growth which resulted in rapidly rising real wage rates during this period. Post-crisis, however, the pace of growth-enhancing structural change has slowed down dramatically and appears to be on a declining trend over the last fifteen years despite an increasingly-educated workforce. During the last five years the industrial sector even posted a net outflow of workers from this high value-added sector to less productive activities. This labor misallocation has contributed importantly to the slow growth in aggregate labor productivity of 5.2% observed over the 2006-2011 period.

Although, workers are better educated in Thailand, Thailand between 2006-2012 witnessed only a 5% gain in labor productivity but the resulting overall wage increase was small. This raises the question to the value of investing in the education of Thailand, both by the government and by student’s families. And further quantitative analysis on the adaptation of the labor market in three major events included: (1) ‘Asian Economic Crisis’ of 1997, (2) The 2009 global economic crisis and its effect on Thailand and (3) During 2011 severe Thai floods.

The results indicated that Thailand has a market mechanism to allocate excess labor supply in order to support external events as they take effect. But the other side of the labor market mechanism is that the Thai labor market is inefficient at reallocating workers to their most productive uses. Misallocation has been growing fast particularly the high-educated labors as seen in Fig. 6. The increasing share of informal employment for highly-educated workers cannot be good for the economy. This concern takes place due partly to a change in Thai workers’ attitudes towards informal employment as well as a consequence of skill mismatch in formal labor market.

TDRI (2013) conducted a survey on the social attitudes and opinions and the results indicated that one way to escape the “Middle Income Trap” was caused by the inability to create innovative and advanced manufacturing technologies to add value to local products.

And as a way to raise wages or income of labor to better the lives of people in the country. Deflection employment on competitive wages to the development of quality products. Restructuring production to create a competitive advantage and to raise labor income to live comfortably. The release trapped middle-income countries, creating a mechanism to create both incentives and pressures to use inputs more advanced technology and want to hire skilled labor rises. Mechanisms of pressure through a mechanism in which the factor price of labor is that wages are higher. Forcing employers have struggled to find ways to improve efficiency.
Labor relations: Labor practices is important between employers and employees in the workplace which affects production and services at work and the well-being of employees as well as the economic and social stability of the country.

Research by Thosuwonchinda (2011) in the study “Sound labour relations in Thailand” found that to promote the excellence in the department of labor protection and welfare, a query was used. By using query is simply the form of labor only. The lack of depth in the quality of labor relations. Especially with regard to the trust between employer and employee. Disclosure of information to each the employee to the employee consultation and participation in the administration at all levels. It is necessary to study the quality of the contest to make labor relations and labor welfare was recognized as an outstanding example and a real good access to labor.

Kimura (1992) “The protection of migrant workers, A case study of international law and Japanese law”, research aims to study legal problems concerning the protection of migrant workers in Japan and to offer suggestions to solve them. This research on international law has found that Japan is internationally obliged to respect the principle of equal treatment in formulating a policy toward migrant workers including illegal migrant workers. The study of Japanese law has also revealed that migrant workers in Japan whether legal or illegal should be protected in accordance with the labour protection law to the same extent as those of Japanese nationality. However, after
scrutinizing Japanese law in detail it has been found that there still exist legal problems concerning the protection of migrant workers. The problems are as follows: (1) Problems concerning the mafia dealing with traffic in women, (2) Problems which stem from the obligation of public officers to inform the Immigration Bureau about the existence of illegal migrant workers, (3) Legal problems concerning trainees and (4) Problems which arise from deporting illegal migrant workers. In the opinion of the author, these problems are inconsistent with the aims of international law and Japanese law. Reforms are required in order to maintain legal justice in society.

Kittijaros (2001) studied the protection of foreign workers legally in Thailand with “Protection of legal foreign migrant workers in Thailand, case study of international labour standards and Thai Law” found that the law in Thailand in connection with the protection of the rights of foreign workers, was mostly consistent with the principles of non-discrimination against foreign workers and met international labor standards but was different in that they had only limited rights to land ownership which remains the only discrimination between Thailand and foreign labor migrants. Another principle of international labor standards is that if countries are Parties to Convention No. 97 it will contribute to foreign workers’ having better labor protection due to them being a member of the International Labor Organization.

Vepavee (2000) studied “Quality of working life and the migration of labor”. This study aimed to construct a Quality of Working Life Index (QWLI) at provincial levels and analyzed the influence of the quality of working life in various aspects together with other factors in order to determine its effects on labor migration.

The methodology to construct the QWLI followed the human development Index or HDI concept of UNDP. QWLI was divided into five dimensions comprising benefits from work, working conditions, labor union participation, work security and peaceful workplaces.

The results indicated that employees in most provinces did not have a high level of working life quality. In general, employees in most provinces had a medium level of benefits from work and working conditions. In addition, most employees had high level of work security and peaceful workplaces but they had a low level of labor union membership.

With respect to factors affecting net migration of working age population by using multiple regression analysis it was found that all 20 independent variables could explain the variation in the net migration rate of working age population (66.6%).

It was apparent that the working age population tended to in-migrate to the provinces with high values of average wage of employees, rate of labor union membership, rate of employees distribution, dependency ratio and level of urban population. It was found that the working age populations tended to out migrate from the provinces with a high value of occupational injury rate and the provinces with a high percentage of employed persons in agricultural sector.

In determining factors affecting out-migration of workers by using logistic regression analysis, all independent variables could explain variation of labor migration at 79.62%. When the different levels of quality of working life were taken into consideration with other structural and individual factors, they were shown to influence the out-migration of workers. The construction of a QWLI is the starting point of index development.

The ministry of labor and social welfare should recognize the significance of developing more indices to cover policy functions, planning and development strategies. The QWLI should be used by all related agencies in order to make the data comparable. The indices, questions and methodologies of information system development should be consistent with the standardized indices as shown in this study. The index construction should be continually assessed in order to be able to observe the change of trend in the long term together with the index development.
In addition, this study was confined to data collected within two years during the years 1996-1997. Some variables may not exert influences on labor migration because the period of study was too short. Future studies should be done on migrants for a period of five years because this length of time is sufficient to examine the changing quality of working life and structural factors on socioeconomic structures.

**Methodology:** The format of the survey population or unit of analysis is lower and middle level managers in Thai rubber businesses.

**Data collection:** "Quantitative research" will be conducted with stratified sampling by dividing the sample according to lower and middle level managers in Thai rubber businesses.

For this research, the measurement instrument or questionnaires utilized will be prepared from the literature. A seven-point rating scale will be employed for a post-study survey. The draft questionnaire will be created with an undetermined number of items which will be later checked for their content validity by five experts in their respective fields based on the Item-Objective Congruence (IOC) Index. The items with an IOC index higher than 0.5 will be considered acceptable. In order to test the proper reliability of the questionnaire, the questionnaire will be distributed to real estate foreign holders and calculated for proper reliability value by using Cronbach’s Coefficient Alpha.

"Qualitative research" will be collected from information from the executives of large international organizations and executives from Thailand’s Investment Promotion Agency in order to confirm the model of quantitative research with a sample of 10 executives selected for sampling using non-probability sampling using random sampling (purposive sampling).

**Questionnaire design:** For this research, the measurement instrument or questionnaires to be utilized will be prepared from the literature. Quality and content will be monitored with tools used in the research and as a measurement of quality. Both content validity and reliability will be assured by 5 experts in their respective fields with an evaluation index consistent with the content and the purpose of the research (index of Item-Objective Congruence (IOC) to carry out screening question specifically dealing with an IOC higher than 0.5 only. The selected items will be dealt with using an IOC higher than 0.5. Questions will be rated by the use of the likert rating scale with each class of measurements using a 7 unit scale for measuring internal consistency with coefficient (α-coefficient) of Akron BAC (Cronbach) to calculated for the average value of the correlation coefficient.

**Measurements**

**Dependent variable:** "Labor free movement analysis" will be used as a measurement instrument or questionnaire utilizing a 7-point likert scale (Likert, 1972). Taiwuth (1999), Yodsan (2005), Waralyam (2002), Suwanprapa (2004) and Thanapauge (2012).

**Independent variables**

**Government labor policy:** Analysis will be used as a measurement instrument or questionnaire utilizing a 7-point likert scale (Likert, 1972). Waralyam, (2002), Tanin (2003) and Thanapauge (2012).
Labor analysis will be used as a measurement instrument or questionnaire utilizing a 7-point likert scale (Likert, 1972; Tanin, 2003; Yongyuan, 2001; Vepavee, 2000; Dechphaisarn, 2004; Thosuwonchinda, 2011).

Labor demand analysis will be used as a measurement instrument or questionnaire utilizing a 7-Point Likert Scale (Likert, 1972; Tangchonlatip, 2005; Kittijaros, 2001).

CONCLUSION

Workers are vital to the economic system of Thailand. In Thailand today there is not enough workers for the agriculture and industrial sectors. There is also the issue of labor mobility and foreign workers who come to work in Thailand. For everyone involved, from managers to government, if there is not good planning and skill development, there will be severe labor shortages in the future.

The government expanded the scope of the protection of labor laws to protect workers in the agricultural sector so they would receive wages and benefits at the same standard as others. This also protected the industry from larger losses in the labor pool by reducing the number of workers seeking better employment opportunities in industry and urban areas. Employers need to be better ware and informed about the welfare of their workers and pay them wages as required by law. Employers must also listen to the feedback from employees and provide or improve their welfare which will contribute to the organization’s wellbeing and longevity.

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