

## **NEW MANPOWER PARADIGM IN THAILAND'S LOGISTICS SECTOR**

**Adisak Suvittawat**

Burapha University, International College, Chonburi, Thailand

[adisaku@buu.ac.th](mailto:adisaku@buu.ac.th); [adisak271@hotmail.com](mailto:adisak271@hotmail.com)

### **Abstract**

The purpose of this research is to identify the new manpower paradigm for the Thai logistics sector which affects the competitiveness of logistics firms. Four main parameters and 20 variables, which came from both literature reviews and observations in the Thai context were explored. The methodology of this research began with a literature review. Based on the research, the three characteristics of logistics employees in the Thai context were first, professionalism, then adaptability and finally internationalization, all of which reflected a firm's competitiveness. The research found that professionalism and quality standards have deteriorated and really need to improve, particularly in skills improvement. Adaptability is also important for Thai logistics workers as the logistics business does not focus only on Thailand but will expand to other countries where there are different perceptions and approaches to business. Internationalization plays an important role since Thai workers need to work or coordinate with other workers from different cultures.

Key words: Manpower, paradigm, Thailand, Logistics, competitiveness, Internationalization

### **INTRODUCTION**

The total population of Thailand is over 67 million, which consists of 57 million people of working age. Of these, 38.92 million people were categorized as laborer forces and only 38.04 million of laborer forces were employed in skilled positions (Ministry of Labour, 2013). The industry demand has significantly increased, by about 59.60 percent and the labor supply cannot meet the demand. There is a shortage of unskilled labor, especially in the agricultural sector and elementary occupations. The demand for unskilled labor is unlikely to be met. The demand for semi-skilled workers, such as sales clerks and technicians has increased by 69.41 percent,

54.86 percent and 33.37 percent from 2010, 2011 and 2012 respectively (Ministry of Labour, 2013).NOTE: please add the three years you refer to here. Since manpower is a driver for a highly competitive organization, manpower development in Thailand's logistics sector must be considered, particularly since Thailand will become an AEC (Asian Economic Communication) member in 2015.

Even though Thailand has a long term strategy for human development in the logistics sector, the supply is still questionable. There is not only a supply shortage in the work force but also the quality of workers needs to develop. The supply shortage can be found at all level of the workforce, such as operational levels and professional levels.

A study on a new paradigm for the Thai logistics sector must be carried out as it will be extremely helpful for Thai entrepreneurs to understand workforce skill development and also how the workforce will prepare for career development.

### **Problem Statements**

The main manpower problem in the Thai logistics sector is the shortage of skilled workers who have the abilities and skills needed for firms to sustain a competitiveness advantage. Even though the Thai education system offers many programs related to logistics operations, the need for skilled workers in logistics is still high.

Thailand has many universities that produce graduates for logistics businesses. However the quality of these graduates is questionable, because they still lack the requisite knowledge and skills. The current focus on quantity rather than quality needs to be addressed in Thailand.

Employee motivation must be a focus too, since highly motivated employees perform well. Thai entrepreneurs in the logistics sector need to know how to motivate employees.

Employees responding to knowledge and new technology development need to study as new knowledge and technology adoption will be inevitable in the new era of Thai logistics Thai entrepreneurs do not really understand that their employees need more capabilities and need to adopt new knowledge and technologies.

### **LITERATURE REVIEW**

The total population of Thailand is over 67 million people, of which 57 million people are of working age. Of these, in 2012,38.92 million people were categorized as laborer forces and only 38.04 million of laborer forces were employed (Ministry of Labour, 2013). Demand for workers significantly increased by about 59.60 percent and the labor supply could not meet demand.

There is a shortage of unskilled labor, especially in the agricultural sector and elementary occupations. The demand for unskilled labor is unlikely to be met. The demand for semi-skilled workers, such as sales clerks and technicians has increased by 69.41 percent, 54.86 percent and 33.37 percent from 2010, 2011 and 2012 respectively (Ministry of Labour, 2013).

In the next 10 years, the unskilled workforce in Thailand will face serious shortages. Industries in Thailand that are expanding their production lines will have approximately 300,000 vacancies for unskilled labor. Thais are currently willing to further their studies for higher degrees and Thailand will become an aging society by 2030 (Panyawai, 2012).

Thailand's demographics are changing. There were about seven million elderly Thais in 2012,, which represented about 10 percent of the total population. This number is expected to increase to 25 percent of total population by 2013 (Ministry of Labour, 2013). The workers in the automobile industry are aging and the younger workers prefer to study more rather than enter the workforce. The retirement age for the automobile industry was 55 years old in 2011, so the government should extend the retirement age to 60 years old (Panyawai, 2012).

As Thailand will invest more in public sector mega-projects and the country's growing industries require more workers, Thailand needs to increase its workforce. Labor estimates for government infrastructure projects and water management projects are for 500,000 and 100,000 workers, which means there will be a labor shortage (Khaopa, 2013).

Thailand's public expenditure on education as a percentage of total government spending increased from 20 percent in 2001 to 23 percent in 2003. (UNESCO, 2009). However Thailand spent about 17 percent of its total education expenditure on tertiary education, a decrease from 21 percent in 2001. This suggests that education outcomes have deteriorated and that this needs urgent improvement.

Graduates do not have the needed skills or experience the private sector requires. Special programs for employee training are needed to provide more knowledge and skills, as well as awareness of company rules, know-how and product knowledge. These programs will be investment costs for companies (Amonvivat, 2013).

Thai worker's skills lagged behind some other countries in the areas of English language proficiency, professional communication, social skills, leadership skills, time management skills, adaptability skills and IT skills (World Bank, 2007). Feedback from entrepreneurs showed similar results, indicating that employees do not have the capabilities required for job execution.

Logistics process knowledge stays in employee minds, which is tacit knowledge. Since employees have different personal backgrounds, they will have different knowledge levels of

logistics processes, different viewpoints and different working methods even though they face the same working processes (Chow et al., 2006).

One management system in Korea is notable in human resource management. Korean companies are changing from traditional payment methods to paying workers based on their performance system, because this encourages employees to focus on personal performance outputs (Chang, 2003). More than 42 percent of Korean companies have implemented this system and 22.6 percent more firms are planning to implement it by (state which year).

## METHODOLOGY

This exploratory research focuses on new factors that affect manpower factors in the Thai logistics business. The research also explores the degree to which each manpower factor had an impact on logistics sector competitiveness.

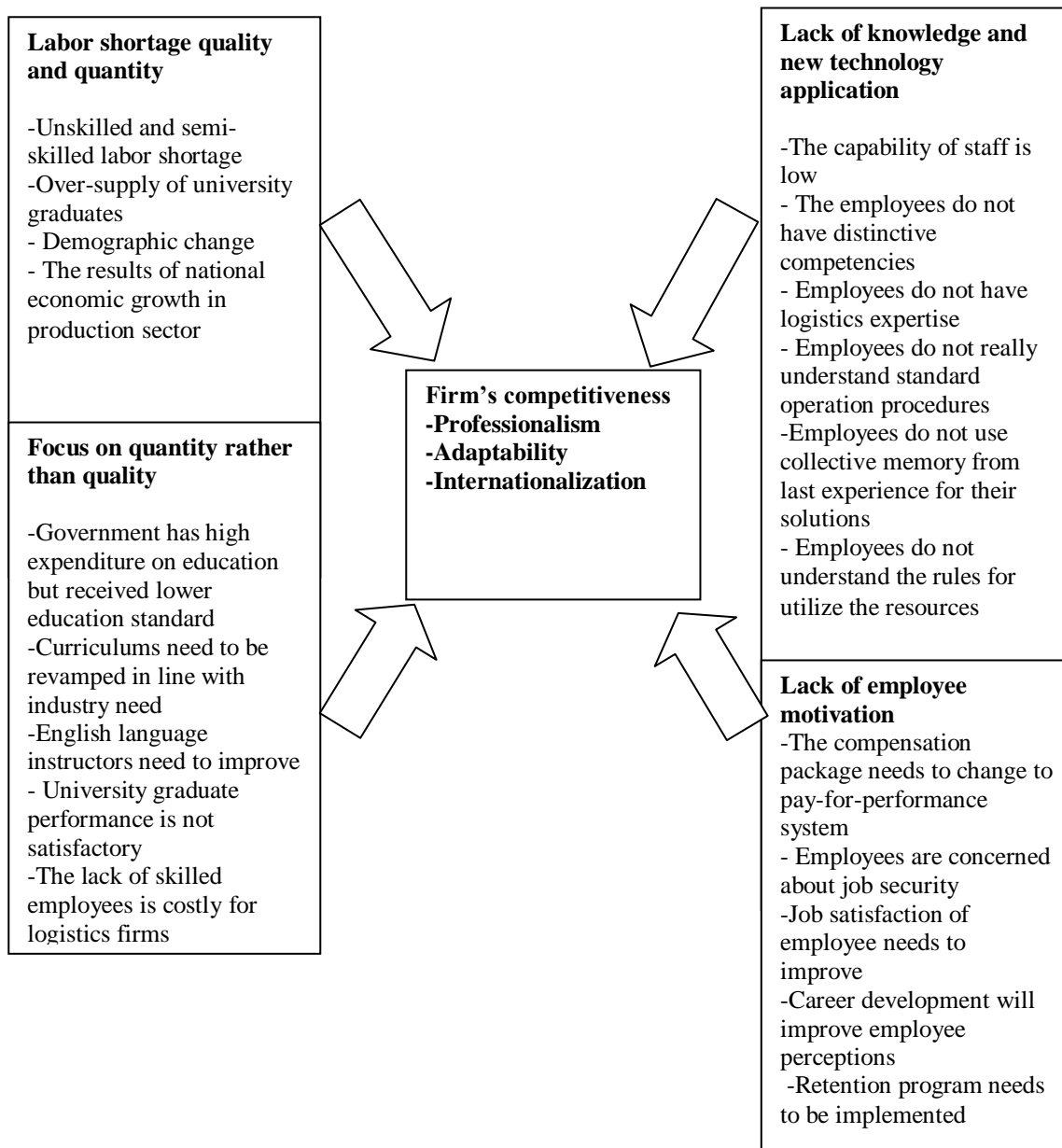
The research applied quantitative methods and used observation to create questionnaire contextual tools. Secondary data were taken from a literature review to confirm research findings. The research process began with a literature review. Based on the literature review, a parameter was created to measure worker related issues and was used to consult with supervisors and experts, before conducting the pilot surveys with the entrepreneurs. Some of parameters were observed under Thai's logistics context. The measures were applied to the results of the survey final version. The survey results were analyzed by using a Mean and SD model. The conclusions were drawn from the study's findings.

The research focused on 60 entrepreneurs in the logistics business who received questionnaires and 50 entrepreneurs' questionnaires were received. The sampling method was done by randomize sample method, the researcher is visiting them and asking them coordination. After the data were analyzed then observations of workers were conducted to confirm the results.

The questionnaires were separated into four rounds, which focused on different research parameter measurements. The first questionnaires focused on these variables: the unskilled and semi-skilled labor shortage, the over-supply of graduates, demographic changes and the results of national economic growth in the production sector. The second questionnaires focused on these variables, how high government expenditures on education resulted in poor education standards, the need to revamp the curriculum to be more in line with industry needs, English language instructor need to improve, university graduates' performances are not satisfied and the lack of skilled employees is costly the logistics firms variables.

The third round of questionnaires focused on these variables: the capability of staff is low; the employees do not have distinctive competencies; employees do not have logistics expertise; employees do not really understand standard operation procedures; employees do not use collective memory from past experience for their solutions; and employees do not understand the rules for utilizing resources variables. The last questionnaires focused on these variables: compensation package needs to change to a pay-for- performance system; employees are concerned about job security; job satisfaction of employees needs to improve; career development will improve employee perceptions and a retention program needs to be implemented.

Figure 1 New manpower paradigm in Thai logistic sector conceptual framework



## ANALYSIS & RESULTS

Table 1. The Mean and S.D of labor shortage in quality and quantity

Labor shortage in quality and quantity	Mean	S.D	Results*
1.Unskilled and semi-skilled labor shortage	2.96	0.27	Agreed
2.Over-supply of university graduates	2.92	0.54	Agreed
3.Demographic change(moving toward elderly society)	2.85	0.57	Agreed
4. The results from national economic growth in production sector	2.82	0.60	Agreed
Total	2.89	0.49	

\*number of respondents=50

Table 1 shows the Mean and S.D results for these variables: Unskilled and semi-skilled labor shortage; over-supply of university graduates; demographic change and the results from national economic growth in the production sector. The results found that the entrepreneurs' responses were in the agreed level, in which the Mean=2.89 and S.D=0.49. The mean for unskilled and semi-skilled labor shortage was 2.96. The mean for the over-supply of university graduates was 2.92. The mean for demographic change was 2.85 and the mean for the results from national economic growth in the production sector was 2.82.

The variables of unskilled and semi-skilled shortage, over supply of graduated level, demographic change and caused effect from national's economic growth from production sector have an influence on labor shortage on both quantity and quality of manpower. The unskilled and semi-skilled shortage is the most influence factor which effect to labor shortage.

Since Thailand's economy was driven by the service sector in the last decade, demand for unskilled labor in the agricultural sector declined. The service sector requires semiskilled labor but the supply of semiskilled labor cannot meet demand. Demand in the service sector for clerks, marketing and sales assistants and technicians has increased from 2010,2011 and 2012 by 54.86, 69.41, and 33.37 percent respectively (Ministry of Labour, 2013). Unskilled and semi-skilled labor is in high demand but the country's labor supply is full of university graduates. In the next 10 years, most industries in Thailand will have approximately 300,000 vacancies for unskilled labor as Thais will continue to further their studies for higher degrees and Thailand will also be an aging society (Panyawai, 2012).

As Thai society values the importance of university degrees, so people tend to stay in university longer. For this reason Thailand has an over-supply of university graduates but there is little demand for them in the workforce compared to the semi-skilled sector. That means companies must train staff to follow company rules and competencies when they are recruited.

The education system in Thailand is still below standard when compared with other countries and the human resource development is still far from meeting market demand in both quantity and quality.

Due to demographic changes in Thailand, the population is aging. There are about seven million elderly people, which is about 10 percent of the total population. This will increase to 25 percent of the total population by 2013( Ministry of Labour, 2013).Automobile industry workers are aging and the young generation prefers to study more rather than enter the workforce. The retirement age for the automobile industry is 55 years old, but the Government should extend it to 60 years old (Panyawai, 2012).

Another reason for the unskilled and semi-skilled labor shortage is the growth of the national economy in the last decade especially in the production sector which brought more labor to the market. This is because Thailand will invest more on Government mega-projects and the country's growing industry increases demand for a large workforce. The estimated required workforce for the Government's infrastructure projects and water management projects was 500,000 and 100,000 workers which will lead to labor shortages (Khaopa, 2013).

Table 2. The Mean and S.D of manpower focuses more on quantity than quality

<b>Develop more on quantity than quality</b>	Mean	S.D	Results*
1.Government had high expenditure on education but received lower education standards	3.27	0.31	Agreed
2.Curriculums need to be revamped in line with industry need	2.90	0.52	Agreed
3.English language instruction needs to improve	2.83	0.70	Agreed
4. University graduate performance was not satisfactory	2.80	0.53	Agreed
5.The lack of skilled employees is costly for logistics firms	2.80	0.46	Agreed
Total	2.92	0.50	

\*number of respondents=50

Table 2 shows the Mean and S.D results for these variables: Government has high expenditure on education but received lower education standard; curriculums need to be revamped in line with industry need; English language instructors need to improve; university graduate performance was not satisfactory; and the lack of skilled employees is costly for logistics firms. The results found that the entrepreneurs' responses were in the agreed level in which the Mean=2.92 and S.D=0.50. The mean for Government has high expenditure on education but received lower education standard was 3.27. The mean for curriculums need to be revamped in line with industry need was 2.90. The mean for English language instructors need to improve was 2.83. The mean for university graduate performance was not satisfactory was 2.80 and the mean for the lack of skilled employees is costly for logistics firms was 2.80.



The variables were: Government has high expenditure on education but received lower education standards; curriculums need to be revamped in line with industry needs; English language instructors need to improve; university graduate performance is not satisfactory and the lack of skilled employees is costing logistics firms (Pramotmaneerat, 2013). The influence on Thai labor is that there is a focus on quantity rather than quality. The factor Government has high expenditure on education but received lower education standard, affected labor shortages the most (Khaopa, 2013).

Thailand's public expenditure on education as a percentage of total Government expenditure increased from 20 percent in 2001 to 23 percent in 2003. (UNESCO, 2009). However Thailand spent about 17 percent of that total on tertiary education, which is a decrease from 21 percent in 2001. This indicated outcomes of education have deteriorated which need improvement in governance and school management. There is a tendency for students to choose private universities over public universities because private universities invest more per student and they have higher standards in some fields, such as business management and social sciences.

Thailand's educational institutions are not generating workers who meet private sector needs. The private sector needs more technicians to keep up with rapid technological changes (Pramotmaneerat, 2013). The academic curriculum must shift to where demand is greatest. Even though Thailand spent a lot of time on education reform in the past decades, it failed to respond to the manufacturing and service sector demand. Two thirds of students prefer to study social science and humanities programs where manufacturing and service sector demand is extremely low (Bardhan et al., 2010).

Skilled workers in Thailand rated poorly in the areas of English language proficiency and IT skills in 2006 when compared to 2003, and was significantly lower than Malaysian gains (World Bank, 2007). Since the AEC (Asian Economic Community) will be fully launched in 2015, countries in South East Asia will have business linkages and the logistics business will dramatically expand. This means that English will become the main language for trade communications.

Since graduates do not have the experience and technical knowledge skills, the private sector needs to have employee training programs which will provide more knowledge and skills of companies' rules, know-how and product knowledge. It also costs the company to invest in these programs (Amonvivat, 2013). The lack of skilled employees is caused the firms' high expenditure as many of the firms saw the lack of skilled workers as a serious bottleneck in expanding their firms' capacity.



Table 3. The Mean and S.D of lack of knowledge and new technology application

<b>Lack of knowledge and new technology application</b>	Mean	S.D	Results*
1.The capability of staff is still low	2.95	0.42	Agreed
2.The employees do not have distinctive competencies	2.93	0.56	Agreed
3.Employeesdo not have logistics expertise	2.84	0.52	Agreed
4. Employees do not really understand standard operation procedures	2.82	0.48	Agreed
5.Employees did not use collective memory from past experience for their solutions	2.71	0.47	Agreed
6.Employees did not understand the rules for utilizing resources	2.70	0.43	Agreed
Total	2.82	0.48	

\*number of respondents=50

Table 3 shows the Mean and S.D results for these variables: The capability of staff is low, the employees do not have distinctive competencies; employees do not have logistics expertise; employees do not really understand standard operation procedures; employees do not use collective memory from past experience for solutions; and employees do not understand the rules for utilizing resources. The results found that lack of knowledge and new technology applications were in the agreed level, in which the Mean=2.82 and S.D=0.48. The mean for the capability of staff is still low was 2.95. The Mean for the employees do not have distinctive competencies was 2.93. The mean for employees do not have logistics expertise was 2.84. the mean for employees do not use collective memory from past experience for their solutions was 2.71, and the Mean for employees do not understand the rules for utilizing resources was 2.70.

The variables of the capability of staff is low, the employees do not have distinctive competencies, employees are not logistic expertise, employees do not really understand the standard operation procedures, employees do not use collective memory from last experience for their solutions and employees do not understand the rules for utilize the resources have an influence on lack of knowledge and new technology application. The low capability of staff was the most influential factor for a lack of employee knowledge and new technology applications.

The capability of Thai workers have fallen significantly behind some countries in the areas of English language proficiency, professional communication, social skills, leadership skills, time management skills, adaptability skills and IT skills ( World Bank,2007). The entrepreneurs' feedback showed similar results, since they said employees did not have the capabilities required to do their jobs.

Employees feel they are mismatched for their jobs as most of the logistics jobs require specific knowledge and skills. Most employees were not willing to ask for help even though they fully understood the skills needed.

The logistics process knowledge that stays in employee minds is tacit knowledge. Since employees come from different personal backgrounds they will have different knowledge levels of logistics processes, different viewpoints and different working methods even though they are facing the same logistics working processes (Chow et al., 2006).

The logistics firms always have their own technologies and organizational knowledge which are management skills, firms' culture and rules and standardized operations. However, most employees are not fully aware of these technologies and organizational knowledge. The major concern of logistics firms is that employees apply a strategic use of distinctive resources. The knowledge of the logistics firms refers to the collective knowledge and experience that cannot be directly transferred to other firms and it Means firms will use their past experience for recent solutions. They know how to utilize the resources for excellent service and product deliveries (Chow et al., 2006).

Logistics sector is process-oriented and involves people working together in different logistics processes such as purchasing, production, and customer service. Logistics success still needs standardized operations that follow firms' guidelines. Employees fully understood resource utilization but they always ignored the process as they are felt it was too complicated for them. It is very important for logistics employees to understand the reasons for appropriate logistics guidelines and to have working process knowledge.

Table 4. The mean and S.D for the lack of employee motivation

Lack of employee motivation	Mean	S.D	Results*
1.Compensation package needs to change to a pay-for-performance system	3.12	0.31	Agreed
2.Employees are concerned with job security	2.95	0.52	Agreed
3.Job satisfaction of employees needs to improve	2.81	0.70	Agreed
4. Career development will improve employee perceptions	2.81	0.53	Agreed
5.Retention program needs to be implemented	2.80	0.46	Agreed
Total	2.92	0.50	

\*number of respondents=50

Table 4 shows the mean and S.D results for these variables: The compensation package needs to change to a pay-for-performance system; employees are concerned with job security; job satisfaction needs to improve; career development will improve employee perceptions; and a retention program needs to be implemented. The results found that the entrepreneurs' responses for a lack of employee motivation were in the agreed level, in which the mean=2.92 and S.D=0.50. The mean for the compensation package needs to change to a pay-for-performance system was 3.12. The mean for employees are concerned with job security was

2.95. The mean for job satisfaction of employees needs to improve was 2.81. The mean for career development will improve employee perceptions was 2.81 and the mean for a retention program needs to be implemented was 2.80.

The variables were compensation packages need to change to a pay-for-performance system; employees are concerned with job security; job satisfaction needs to improve; career development will improve employee perceptions; and a retention program needs to be implemented to influence a lack of employee motivation. The compensation package needs to change to a pay-for-performance system factor had the most impact on employee motivation. In Korea, a notable change in human resource management was that companies began to change from traditional payment methods, to paying for performance, as it encouraged employees to focus on personal performance outputs (Chang, 2003). More than 42 percent of Korean companies had implemented a pay-for-performance system and 22.6 percent of the others were planning to implement it.

Job security was the most important external factor to affect employee motivation. Korean companies for example, were moving toward an extreme reliance on the external factor of motivation (Brief and Aldag, 1989). Employee attitudes towards job security was not the only external factor, and many factors affected employee job security.

Job satisfaction has been defined as the positive emotional response in workers who have an effective attitude and offer job situation feedback. Job satisfaction is an important motivation for high employee performance. It should also be an organizational commitment from the employee's perception. Another factor which affects job satisfaction is a firm's working environment. Firms that have a good working environment have employees who have higher job satisfaction than those employed in a poor working environment (Poulin, 1995).

Good support from subordinates, supervisors and the management team has a significant impact on employee motivation, because it will enhance employee motivation, reduce their stress and dramatically improve their job performance (Babin and Boles, 1996; Facticeau et.al., 1995). Employees were concerned when there were changes in a firm's business operations because this caused panic and fear to the employees. A clear and focused employee career development plan would reduce employee frustration and enhance employee motivation.

The companies that have a better organizational culture and better job satisfaction have high retention rates. When a company has a policy for laying off workers or for reorganizing,, its retention rate falls because employees feel insecure about their jobs, and they lose their motivation (Sheridan, 1992).It is not necessary that the poorest performing employees leave the

organization but the good performing employees will leave if they cannot rely on career development plans.

## CONCLUSION

As the employee is an important success factor for any organization, logistics organizations need to revamp their organizational capabilities through employee development. The AEC will be fully launched in 2015 and logistics business will be very important for the Thai economy. The logistics business expansion and competition will be inevitable, so Thai logistics firms must develop their competitiveness because Thai logistics competencies are still far behind other countries in both unskilled and professional labor levels.

Based on the research, the three characteristics of logistics employees in the Thailand context are professionalism, adaptability and internationalization. The research found that the quality of professionalism and standards have deteriorated and really need to improve, particularly in skills improvement. Adaptability is also important for Thai logistics workers as the logistics business does not focus only Thailand but will expand to include other counties where there are different perceptions and approaches to business. The excellent adaptability of Thai logistics workers will drive not only Thai competitiveness but also the Thai economy as a whole. Internationalization plays an important role since Thai workers need to work or coordinate with others who are from different cultures. Since the logistics sector is an international industry that depends on regional collaboration, then internationalization is inevitable for better people-to-people communication in business operations. Thai workers need urgently to develop their English proficiency skills otherwise Thai workers will lose out on business opportunities.

## LIMITATIONS OF THE STUDY

Since the information of manpower in Thai's logistics is still limited and some entrepreneurs do not want to give their information, it is very difficult for information exploring. The next research must be focused on some parameters and retest it again for results confirmation.

## REFERENCES

- Amornvivat, S. 2013. Thailand's labor shortage underlines deeper problems. Published in Bangkok Post/In Ponderland, Retrived 20 November 2013, from [http://www.scbeic.com/ENG/document/topic\\_bkkpost\\_intelligence](http://www.scbeic.com/ENG/document/topic_bkkpost_intelligence) .
- Babin, B.J., &Boles, J.S. 1996. The effect of perceived co-worker involvement and supervisor support on service provider role stress, performance and job satisfaction. *Journal of Retailing*, 72 (1), 55-57.
- Bardhan, Ashok, Hicks, Daniel, &Jaffee, Dwigh. 2010. How Responsive is Higher Education? The Linkages between Higher Education and Labor Market. Paper presented at AEA 2010. A. Retrived from,<http://www.aeaweb.org/aea/conference/programretrieve.php?pdfid=458>.

- Brief, A., & Aldag, J. 1989. The economic functions of work. *Research in Personal and Human Resources Management*, 7, 1-13.
- Chang, E. 2003. Composite effects of extrinsic motivation on work effort: case of Korean employees. *Journal of World Business*, 38, 70-79.
- Chow, K.H.H, Choy, K.L., & Lee, W.B. 2007. A dynamic logistics process knowledge-based system-An RFID multi-agent approach. *Knowledge-based System*, 20, 357-371.
- Facteau, J.D., Dobbins, G.H., Russel, J.E.A., & Ladd, R.T. 1995. The influence of general perceptions of the training environment on pretraining motivation and perceived training transfer. *Journal of Management*, 21(1), 1-25.
- Khaopa, W. 2013. New government committee to study country's labour shortage issues. Published on April 6, 2013 by The Nation. Retrieved from <http://www.thaivisa.com/forum/topic/631165-new-govt-committee-to-study-thailands-labour-shortage-issues/>.
- Ministry of Labour of Thailand. 2013. Country Brief Unemployment Insurance of Thailand. Retrieved from <http://www.social-protection.org/gimi/gess/ResourceDownload.action?>.
- Panyawai, P. 2012. Severe labour shortage looms. Published on December 12, 2012 by The Nation. Retrieved from <http://www.nationmultimedia.com/business/labour-shortage-looms-in-Thailand-3017233.html>.
- Poulin, J.E. 1995. Job satisfaction of social work supervisors and administrators. *Administration in Social Work*, 19(4), 35-49.
- Pramotmaneerat, T. 2013. FTI: Industry sector facing labor shortage. Published on July 10, 2013 by TFP. Retrieved from <http://www.thaifinancialpost.com/2013/07/.../fti-industrial-sector-facing-labor-shortage/>
- Sheridan, J.E. 1992. Organizational culture and employee retention. *Academy of Management Journal*, 35(5), 1036-1056.
- The World Bank, Human Development Sector. 2007. Malaysia and Knowledge Economy: Building a World-Class Higher Education System. Report No. 40397-MY. Washington D.C.
- UNESCO Education for All. 2009. Overcoming inequality: Why governance matters. EFA Global Monitoring Report 2009. Paris, France.