

The Development and Assessment of Parcel and Courier Business Professional Competency for Developing Logistics Personnel

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ABSTRACT

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Development and assessment of professional competence in parcel and courier to enhance the competence of logistics personnel. The research employed qualitative methodology which participants in both groups were purposively selected. The professional association requires companies that are members under the professional association. Qualitative and quantitative assessment and assessment of professional competence Research tools used to assess knowledge using multiple-choice tests and assess skills using operational demonstrations. Statistics used were percentage, mean, standard deviation and t-test independent. Assessment results showed a high level of propriety. The IOC indices were greater than the set criteria for all items. Assessment results on parcel and courier professional competency for logistics personnel reported none of the assessee passing the international express parcel and courier management assessment and 2 assessee passing the domestic express parcel and courier management assessment. Because of the employees who take the assessment are not prepares for the assessment, and the practice of employees working in their current responsibilities only does not cover career competencies at the level assessed.

1. INTRODUCTION

Nowadays, the logistics business in Thailand is becoming more and more important to the nation's growing economy. Among others, the logistics business is especially vital because of Thais preference to engage in increasingly more online sales business. Day-to-day freight services are used by many and the freight forwarding business is expanding rapidly. Therefore, many freight forwarders are actively looking to develop delivery systems that meet standards and also have superior capabilities over competitors. The continued development of the logistics business is so important to the growth and forward drive of the Thai economy because it supports and facilitates such a wide range of business operations, from the transportation of raw materials in the manufacturing sector to the transportation of goods in the consumer sector [1]. An increasing demand for freight transport services is now observed each and every year [2]. Another reason for expanded logistics business is due to the rapid growth of e-Commerce market attracting new investors to compete aggressively in the online sales market and consequently in the parcel and courier service consumer market. Logistics development according to the 20-year national strategy has an important goal in developing logistics systems and supply chains that aim for achievement. By enhancing the potential of the entire logistics system and increasing the capability of the logistics service business push Thailand to be the logistics hub of the sub-region and ASEAN region. The land transport business and the parcel delivery business have seen significantly higher growth. A total of 3,666 new businesses were opened, an increase of 34.68 percent compared to the

previous year. The high-growing business is the "document/item delivery business" with a high growth of 201.1 percent, observed from the increase in the type of land transportation business. Most of them are transportation costs. Business to Business: B2B and Postal & Courier Business-to-Customer: B2C including Last-Mile Delivery with massive growth [3].

As the parcel and courier business continues to grow, the demand for forwarders to deliver goods from sellers to buyers via online stores is likely to increase as well [4]. Currently, the business is highly competitive due to changing business models, partly as a result of competition with logistics operators from abroad who have service models that can more efficiently meet the needs of customers in the digital age. With the advantages of modern technology, better developed system management models affect the agility of service provision [5]. Human resource development in the current business sector amidst ever-increasing competition is faced with the urgent need to adapt to become more competitive by reducing costs and increasing work efficiency, especially by enhancing the potential of existing personnel [6, 7].

Therefore, it is imperative to accelerate the development of parcel and courier personnel for enhanced competencies. The liberalization of the business environment in many sectors of the economy has meant intensifying trade competition both domestically and globally. Courier services are not spared from this. As a result of increasing competition in the global shipping business, market players face challenges in adapting to the new business environment [8]. Human resource development (HRD) based on knowledge and information is needed to adapt and sustain businesses amongst new industrial

structures and economic conditions. Developing the talent of the workforce and prioritizing sustainable growth and development will determine the future and stability of societies in the region. An important factor of future success is the quality and quantity of human resources available in the region [9]. The effectiveness of human resources depends on many aspects: knowledge, experience, techniques, skills of affect or “soft skills”, motivation, and emotional and behavioral health factors. Therefore, competency should be considered as the combination of all these aspects in predicting potential for job completion [10].

From the above information, the researcher is interested to studying the development and evaluation of parcel and courier business. Analysed professional competency by the job function analysis method from the main function, core competency, sub-competence, respectively. Then use the competency to develop an assessment tool to assess knowledge and skills of employees.

2. LITERATURE REVIEW

2.1 Competency development

Occupational competency development is the process of identifying the details of a career to find out if a person is competent in that occupation. What abilities do you have? Therefore, the results of the career analysis will yield content that is knowledge and skills that are written for use in teaching. Career analysis leads to the creation of a curriculum to be used to develop people to match the job itself. In summary, professional competency development is the discovery of the essential elements of the entire career. Each occupation will have a job title. The results of the analysis will be used to develop the curriculum in accordance with the conditions of the actual workplace [11, 12].

2.1.1 Competency development methods

One way to determine occupational standards is to use functional analysis, written in the form of a functional map, to determine key functions and units of competency. The structure is a 5-level tree diagram consisting of Key Purpose, Key Roles, Key Functions, Units of Competence and Elements of Competence as shown in Figure 1.

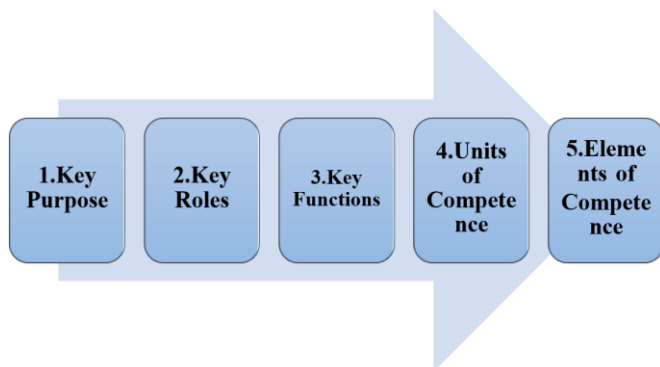


Figure 1. Functional map [11]

Model of professional competency development is divided into 2 parts: unit summary (whole unit) and performance details. Captions in the job function diagram written in the

form of outcomes that describe the results of the activity. It is written in the form of verb + object + condition/situation.

1. Key Purpose is a description of nature and characteristics of a profession that is different from other occupations. (Similar to the description of the organization’s mission).

2. Key Role is a question to achieve career goals. What do you expect personnel to be able to do?

3. Key Function is the same question as key roles. That is "in order to achieve the role, what do people expect to be able to do?"

4. Unit of Competence is a description of the results that an individual or part of a team. It is competent and responsible. The main components of performance include specific job skills, specific task management skills, contingency management skills, unusual or emergency, environmental role skills and working with others.

5. Element of Competence is a sub-competence. It is the basic building block of a unit of competence, which described in the form of results. Duties that personnel are working in specific functions must perform. Sub-competencies describe actions or outcomes, which can be demonstrated and assessed. Many sub-performances combined into one performance unit. Performance must have the following key points: avoid specific task lists (task). It is an interconnected structure of competency units. It can be a sub-competence of several units of competence.

2.1.2 Establishment of occupational standards

Occupational standards mean to determine the level of person’s competency in a career. Professional standardization project as well as developing a system for accrediting professional qualifications by developing professional standards in Thailand leading to the development and upgrading of manpower to increase the country’s competitiveness and apply professional standards and competency standards to develop personnel competency in each profession. There are 2 important components, namely 1) knowledge and skills 2) ability to apply and responsibility. The preparation of professional standards must consider the link between the "academic world" where graduates receive compensation or salary according to their qualifications, and the "working world" where salary is based on skill level. Therefore, there must be a national standardized system that can compare educational qualifications with professional skill competencies [13].

2.2 Competency assessments

Competency assessment means the process of evaluating knowledge, skills, abilities and work behaviors of individuals [14, 15]. Including characteristics that are expressive and comparable on a scale. Expected competencies in that position to determine personal development methods or use in human resource management and development planning are specific to the following: (1) Systematic, (2) Objectives, (3) Measurable, and (4) Validity and Reliability [16].

The objectives of the competency assessment are [17]:

1. To be used in human resource development and used to improve work according to the responsibilities of the position related to that operation.

2. To develop personnel to achieve the goals of the organization according to the responsibilities of the position.

3. To analyze problems and obstacles in work and use them as information to improve the management and development

of human resource systems.

4. To promote the working atmosphere of personnel to be creative and jointly develop the organization to achieve its goals.

5. It is information about a person's ability level to be considered for a higher position. The person conducting the competency assessment must be involved and have a stake in the organization and must understand the nature of the job: responsibilities, organizational goals, and corporate culture and values. Competency assessment consists of the following assessments: (1) Self-assessment, (2) Immediate supervisor assessment, (3) Board assessment, (4) Colleague assessment, (5) Subordinate assessment, and (6) Client assessment [18].

Performance system assessment is intended to truly measure the level of competence of personnel, comparing levels of competence expected by the organization in each job position. Each organization's assessment may vary depending on the objectives of the competency system implementation and availability of personnel, resources and time [19].

2.3 Parcel and courier business

Profound changes have taken place in people's lifestyles in this era where the internet and digital engagement play a much greater role in life and drive rapidly shifting consumer behavior. As a result, we see the rate of increase in the e-commerce market: electronic commerce with an increasing number of consumers, people carrying out the process of delivering ordered goods or parcels to their destination, often referred to as "delivery" [20].

Courier and postal services are domestic and international services. Parcel and postal services are quick services by nature, providing a door-to-door service delivering products most of which are small and light in weight, etc. One advantage of using the service is that it is suitable for small-volume products which can be delivered quickly given a good management system. Another important aspect of using the service is the price of the product delivered to the recipient may be subject to additional charges respective of import duties in different countries. Items are usually shipped in small quantities with a total weight and volume not exceeding 45 kg [21].

The parcel delivery or package delivery business is the delivery of parcels or high-value mail. This service is usually provided by most postal systems. Express mail or private transport, that is, sending parcels is sending goods or items of high or low value from a person or company to a predetermined place or destination [22, 23].

Parcel and postal service refers to the delivery of small, lightweight parcels. Fast delivery requires a complex network. You can also track the status of your parcel reliably, quickly and accurately [24].

Conclusions, the development of professional competencies, parcel and courier businesses must develop from professional standards to develop professional manpower. Because improving the workforce's productivity requires clear and measurable results, it is important to anticipate it. By evaluating the competency of personnel in the organization to have higher quality as well [25]. Occupational standards or competency standards are specifications of the core competencies or performance abilities that a person is expected to achieve in that occupation. The results or results of the work must be measurable, appraised, and standardized. These established standards have been developed by specific

professional groups, professional owners and/or professional organizations.

3. RESEARCH METHODOLOGY

3.1 Conceptual framework for the study

This research used a mixed method. The research conceptual framework is shown in Figure 2.

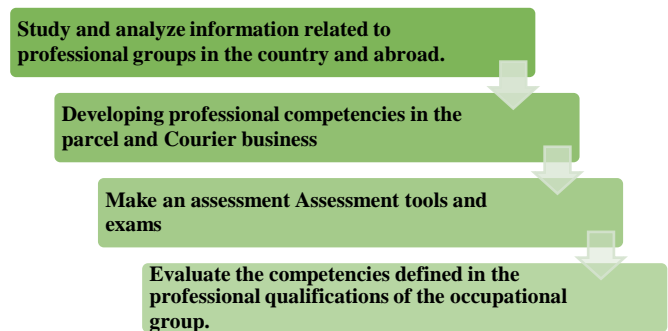


Figure 2. Research conceptual framework

3.2 Research process

1. Study career competencies in parcel and courier business by studying and analyzing information related to foreign and domestic occupational groups.
2. Organize a workshop on career competency in the field of parcel and courier. To develop career competency in parcel and courier according to the needs of professional groups.
3. Study the information related to performance assessment.
4. Prepare a draft assessment tool for performance assessment of personnel in the parcel and courier business.
5. Organize a meeting of experts to develop a tool to assess the operational competency of personnel in the parcel and courier business.
6. Developing a tool to assess the operational competency of personnel in the parcel and courier business.
7. Take the performance assessment tools of personnel in the parcel and courier business to experts for quality inspection.
8. Implement performance assessment tools to be used to assess the performance of personnel in the parcel and courier business in the management of international express parcels and in the handling of domestic express parcels.
9. Analyze results and summarize the results of career competency assessment in the parcel and courier business.

3.3 Target group

1. The target group of information providers to develop their professional competence in parcel and courier business that professional association representatives consider to be experts to provide information about their professional competence in parcel and courier business.

The focus groups including 20 experts who are individually selected based on their qualifications. By selecting from representatives of professional associations in urgent parcel delivery international transportation and logistics in Thailand.

2. The target groups of informants to develop a performance assessment tool based on representatives of professional associations. Become a parcel and courier specialist to provide

information on their parcel and courier in a focus group discussion of 10 experts, individually selected based on expert qualifications.

3. The target groups that were evaluated for performance were 10 international parcel and delivery officers and 12 domestic parcel and express delivery officers, selected only according to the specified criteria. Participants in both groups were selected by professional associations that require companies that are members of professional associations to send their employees to participate in professional competency assessments.

3.4 Research instrument

1. Document Study

The stage of developing parcel and courier professional competency employed the following tools: a functional map containing key functions; units of competency and elements of competency; performance criteria; and assessment guidance. This using the principle of professional standardization by the use of Functional Analysis / Occupational Analysis [26, 27].

2. Focus Group Discussion: FGD

Group discussions were held to gather information from experts. From representatives of professional associations for participants to express their views on the issues determined by the researcher. Information gained from group meetings leads to complete information and can be used in other steps.

3. Performance Competency Assessment

The stage of using the performance competency assessment tool for authentic competency assessment used the following tools: a knowledge test with a 4-choice objective test; a practical assessment using authentic operational assessment and an interview at work [19]. The knowledge section was tested using a four-choice multiple choice exam and a practical test depending on the qualification level. The tools used for the practical exam were an interview form and an operational observation form. Performance assessment forms and other portfolios were used. For the interviews, a response card consisting of logistics and management skills was given to interviewees asking them about the suitability of these skill groups for logistics professionals as well as their rankings. Interviewees were also asked to indicate any new skill and knowledge that they would think important to be included [28].

4. Examination of the quality of occupational competency assessment tools

The instrument quality check is one step after the construction of estimator is complete. The researcher used content validity. The experts must consider the consistency between the items of questions in the assessment form and the objectives of each item.

$$IOC = \frac{\sum R}{N}$$

The assessment stage with a performance appraisal tool using the Item Objective Congruence (IOC) assessment form with a criterion greater than 0.50 [29].

5. The stage of concluding the performance competency assessment of parcel and courier personnel used an individual competency assessment form and a summative competency assessment form.

3.5 Data collection

1. Data is collected by studying documents and analysing their content.

2. Collected data from focus group discussions with experts in the freight forwarding and parcel business. Regarding the development of professional competency in the freight forwarding and parcel business. Functional map based on the results of the resolution and amendment of the professional competency list according to the recommendations of the group meeting.

3. Collected data from focus group discussions with experts in parcel and courier business. The development of a tool to assess the performance of personnel in the parcel and courier business. Using a draft multiple-choice theory test with 4 options with an overall passing criterion of not less than 60 points and skill assessment form. Design a practical demonstration assessment and job interview form. The assesses must pass all assessment items.

4. The researcher conducted an experiment to evaluate the performance in the parcel and courier business, divided into 2 parts: part 1 theoretical evaluation using a multiple-choice test with 4 options and part 2, a practical assessment using examiner together with the performance assessment form and a skill interview form.

3.6 Data analysis and statistics

1. Analyse data from focus groups discussion with content analysis. Data is analysed according to the expected content and summarized as key points to guide the preparation of the performance assessment tool.

2. Descriptive statistics was used to describe basic statistics used, including Frequency Percentage, Mean and Standard Deviation.

3. Inferential statistics were used to test the hypothesis to study the differences between parcel and international express operator groups, domestic parcel, and express delivery operators. The statistics used were t-test.

4. RESULTS

4.1 The result of the development of parcel and courier professional competency

The workshop with parcel and courier specialists in the two lines of work focused on drawing up functional maps which included units of competency with elements of competency; performance criteria; and assessment guidance. At least 3 workshops were conducted, and the parcel and courier professional competency was outlined below.

4.1.1 Result of the development of parcel and courier professional competency

Table 1. Number of parcel and courier professional competency

Line of Work	Key Function	Unit of Competency
International express parcel and courier management	3	30
Domestic express parcel and courier management	3	30

Table 1, the results of professional competency development in parcel and courier business. It was found that competency in International express parcel and courier

management was analyzed and considered by experts, with 3 Key Function, 30 Unit of Competency. Domestic express parcel and courier management received 3 Key Function, 30 Unit of Competency as details in 4.1.2 and 4.1.3.

4.1.2 Result of the development of parcel and courier professional competency for international express parcel and courier management

Table 2. Result of the development of parcel and courier professional competency for international express parcel and courier management

Key Function	Unit of Competency
101 Packing and delivery of documents, parcels, and goods	10101 Preparation of packing materials for documents, parcels and goods.
	10102 Packing documents, parcels and goods.
	10103 Preparation of vehicles to deliver documents, parcels and goods.
	10104 Maintenance of vehicles for the delivery of documents, parcels and goods.
	10105 Use of routes for express delivery of documents, parcels and goods.
102 Management for the import of urgent documents and parcels from overseas to customers	10201 Performing customs clearance for the import of urgent goods from overseas.
	10202 Processing paperwork related to incoming urgent goods from overseas.
	10203 Sorting urgent imported goods by type of customs formalities.
	10204 Coordinating with the Customs Department officers.
	10205 Determining the customs tariffs.
	10206 Follow up on the relevant codes, regulations, procedures for international express delivery of documents and parcels.
	10207 Picking up documents and parcels from the airport.
	10208 Sorting urgent documents and parcels from overseas.
	10209 Checking names and addresses of recipients of urgent documents and parcels from overseas.
	10210 Storing urgent documents and parcels from overseas for later delivery to customers.
	10211 Processing paperwork for the delivery of urgent documents and parcels from overseas to customers.
	10212 Liaise with the recipients of urgent documents and parcels from overseas.
	10213 Management of express delivery routes for documents and parcels from overseas to customers.
10214 Preparation for express delivery of documents and parcels from overseas to customers.	

Key Function	Unit of Competency
103 Management for overseas export of urgent documents and parcels	10215 Delivery of urgent documents and parcels from overseas to customers.
	10301 Coordinating with customers to pick up urgent documents and parcels for overseas delivery.
	10302 Planning to pick up urgent documents and parcels from customers for overseas delivery.
	10303 Preparation of documents for express delivery of documents and parcels from customers to overseas.
	10304 Check of urgent documents and parcels from customers for overseas delivery.
	10305 Sorting urgent documents and parcels from customers for overseas delivery.
	10306 Storing urgent documents and parcels from customers for later overseas delivery.
	10307 Proceeding overseas delivery of urgent documents and parcels from customers.
	10308 Performing customs clearance to export urgent goods.
	10309 Processing paperwork related to urgent goods for overseas export.
10310 Sorting urgent exported goods by type of customs formalities.	

Table 2, the results of professional competency development in the parcel and courier business. The International Express Parcel Management Division found that its Key Functions consisted of 101 packing and delivering documents, parcels and goods 5 Unit of Competency, 102 units of import documents and express parcels from abroad to customers, 15 Unit of Competency and 103 units of exports handling. Documents and express parcels from overseas customers 10 Unit of Competency.

4.1.3 Result of the development of parcel and courier professional competency for domestic express parcel and courier management

Table 3. Result of the development of parcel and courier professional competency for domestic express parcel and courier management

Key Function	Unit of Competency
201 Packing and delivery of documents, parcels, and goods	20101 Preparation of packing materials for documents, parcels, and goods.
	20102 Packing of documents, parcels and goods.
	20103 Preparation of vehicles to delivery documents, parcels and goods.
	20104 Maintenance of vehicles for the delivery of documents, parcels and goods.
	20105 Use of express routes to deliver documents, parcels and goods.

Key Function	Unit of Competency
202 Management of domestic express parcel delivery	20201 Liaise with customers for domestic express parcel delivery.
	20202 Planning to pick up domestic urgent parcels.
	20203 Picking up domestic urgent parcels.
	20204 Sorting domestic urgent parcels.
	20205 Planning for domestic express transport of parcels.
	20206 Loading domestic urgent parcels onto vehicles.
	20207 Release of vehicles for domestic express parcel delivery.
	20208 Receipt of urgent parcels for distribution centers.
	20209 Preparation for express parcel delivery to recipients.
	20210 Delivery of domestic urgent parcels to recipients.
	20211 Receipt of domestic urgent parcels from customer locations.
	20212 Submitting documents, goods and money to the agency.
20213 Closure of documents list of domestic express parcel delivery.	
203 Management of domestic delivery of urgent items	20301 Coordinating with customers for domestic express item delivery.
	20302 Planning to pick up domestic urgent items.
	20303 Receipt of domestic urgent items.
	20304 Sorting domestic urgent items.
	20305 Planning for domestic express items transport.
	20306 Loading domestic urgent items onto vehicles.
	20307 Release of vehicles to deliver domestic urgent items.
	20308 Receipt urgent items for the distribution center.
	20309 Preparation for domestic express item delivery to recipients.
	20310 Delivery of domestic urgent items to recipients.
	20311 Submitting of documents, goods and money to the agency.
	20312 Closure of documents list of domestic express items delivery.

Table 3, the results of professional competency development in the parcel and courier business. Domestic Express Parcel Delivery Line Key Function consists of 201 Packing and delivery of parcels and goods documents, 5 Unit of Competency, 202 Domestic Express Parcel Delivery 13 Unit of Competency, and 203 Domestic Express Parcel Delivery 12 Unit of Competency.

4.2 Result on the development of freight performance competency assessment tools

The development of professional competency assessment tools for freight business in both lines of international express freight management and domestic express freight management took on the analysis of professional standards in order to construct the tools to assess individual unit of competency which involved the tools to measure knowledge, skills, and

others. The assessment method and constructed tools encompass all of the performance criteria in the unit of competency by professional standards. The results on the development of assessment tools are described next.

Table 4. Development of freight professional competency assessment tools for international express freight management and domestic express freight management

Key Function	Competency Assessment Tool		
	Knowledge Objective Test	Demonstration	Interview
101 Packing and delivery of documents, parcels, and goods	✓	✓	✓
102 Management to import urgent documents and parcels from overseas to customers	✓	✓	✓
103 Management to export urgent documents and parcels from customers to overseas	✓	✓	✓
201 Packing and delivery of documents and parcels	✓	✓	✓
202 Management of domestic express parcel delivery	✓	✓	✓
203 Management of domestic express item delivery	✓	✓	✓

Table 4, the results of the development of the performance assessment tool for career performance in the parcel and courier business. It was found that the design of the performance evaluation tool for handling international express parcels and domestic express. There are tools for evaluating all competencies, namely knowledge using a multiple-choice theoretical test with at least 60 passing points and skills by skill assessment. Assessment forms, demonstrations of real work practices and job interview forms that have passed the criteria. Appraisers must pass all assessment items.

4.3 Result of congruence assessment of professional competency and professional qualification assessment tool

To assess the freight performance competency assessment tools, the 5 qualified experts had validated the tools by means of appropriateness assessment and Index of item objective congruence (IOC), and the results are as follows.

4.3.1 The result of the assessment of the appropriateness of the career competency assessment tool in the parcel and courier business

Table 5, the results of the assessment of the suitability of the career competency assessment tool in the parcel and courier business. There were 5 experts who found that overall, the assessment results were appropriate at a high level (\bar{X} = 4.43). The items with the highest evaluation were matched the career characteristics in the parcel and courier business. The next most important was the variety of evaluation that was suitable for the career competency in the parcel and courier business.

Table 5. Assessment of the appropriateness of the career competency assessment tool in the parcel and courier business

Assessment Items	Assessment Results		Appropriateness Level
	\bar{X}	S.D.	
The assessment covers career competencies in the parcel and courier business.	4.40	0.55	much
The assessment matches the job description in the parcel and product delivery business.	4.60	0.55	most
Evaluation tools cover the evaluation criteria of professional competency in the parcel and courier business.	4.40	0.55	much
The criteria used in the evaluation cover the evaluation criteria of professional competency in the parcel and courier business.	4.20	0.45	much
Assessment is diverse and suitable for career competencies in the parcel and courier business.	4.55	0.37	most
Total	4.43	0.49	much

4.3.2 The result of the congruence assessment of the professional competency assessment tool in the parcel and courier business

Table 6. Assessment of the congruence of professional competency assessment tool in the parcel and courier business

Assessed Competencies	Assessment Tool	IOC
101 Packing and delivery of documents, parcels, and goods	Multiple-choice test 4 choices	1
	Operational Demonstration	1
	Interview	1
102 Management to import urgent documents and parcels from	Multiple-choice test 4 choices	1

Table 7. Summary result of professional competency assessment of parcel and courier express custom clearance staff

Item	Result on the Trial of Performance Competency Assessment						Result of Assessment
	Score of Theory	Minimum Threshold (%)	Result of Theory	Result of Practice	Result of Interview		
1	54.83	60	Fail	Pass	Fail		Fail
2	32.25	60	Fail	Fail	Fail		Fail
3	50.00	60	Fail	Fail	Fail		Fail
4	38.70	60	Fail	Fail	Fail		Fail
5	53.22	60	Fail	Fail	Pass		Fail
6	54.83	60	Fail	Fail	Fail		Fail
7	61.29	60	Pass	Fail	Pass		Fail
8	30.64	60	Fail	Fail	Fail		Fail
9	30.64	60	Fail	Fail	Fail		Fail
10	33.87	60	Fail	Fail	Fail		Fail

Note: Assesseees are required to pass the minimum threshold of 3 aspects to be considered passing the competency assessment.

Assessed Competencies	Assessment Tool	IOC
overseas to customers	Operational Demonstration	1
	Interview	1
103 Management to export urgent documents and parcels from customers to overseas	Multiple-choice test 4 choices	1
	Operational Demonstration	1
	Interview	1
201 Packing and delivery of documents and parcels	Multiple-choice test 4 choices	1
	Operational Demonstration	1
	Interview	1
202 Management of domestic express parcel delivery	Multiple-choice test 4 choices	1
	Operational Demonstration	1
	Interview	1
203 Management of domestic express item delivery	Multiple-choice test 4 choices	1
	Operational Demonstration	1
	Interview	1

Table 6, the results of the congruence assessment of the professional competency assessment tool in the parcel and courier business. It was found that the sum of all Index of item objective congruence (IOC) was equal to 1, which had a consistent value higher than the specified criterion by 0.5 for all items, indicating that the tools used for the assessment were consistent in terms of good content.

4.4 Result of the trial of performance competency assessment of parcel and courier personnel

4.4.1 Result of the trial of performance competency assessment of parcel and courier personnel in international express parcel and courier management

Table 7 shows that the overall assessment did not include 10 assessments for the knowledge assessment. There was only 1 assessed and 9 failed assessments with a maximum score of 61.29% and a minimum score of 30.64% for competency assessment. Only 1 assessor passed the skill assessment in the demonstration. and only 1 person passed the interview assessment.

Table 8. Summary result of professional competency assessment of domestic express parcel and courier staff

Item	Score of Theory	Result of Trial of Performance Competency Assessment					Result of Assessment
		Minimum Threshold (%)	Result of Theory	Result of Performance 1	Result of Performance 2	Result of Interview	
1	78.16	60	Pass	Pass	Fail	Pass	Fail
2	61.63	60	Pass	Fail	Fail	Pass	Fail
3	79.87	60	Pass	Fail	Fail	Pass	Fail
4	76.72	60	Pass	Pass	Pass	Pass	Pass
5	77.99	60	Pass	Fail	Pass	Pass	Fail
6	63.52	60	Pass	Fail	Pass	Pass	Fail
7	71.70	60	Pass	Pass	Fail	Pass	Fail
8	79.24	60	Pass	Pass	Pass	Pass	Pass
9	69.81	60	Pass	Fail	Pass	Pass	Fail
10	62.26	60	Pass	Fail	Fail	Fail	Fail
11	73.58	60	Pass	Fail	Fail	Pass	Fail
12	78.61	60	Pass	Fail	Pass	Pass	Fail

Note: Assesseees are required to pass the minimum threshold of 4 aspects to be considered passing the competency assessment.

4.4.2 Result of the trial of performance competency assessment of parcel and courier personnel in domestic express parcel and courier management

Table 8 shows that out of 12 assessors, only 2 passed and 10 of them failed. For the assessment of theoretical knowledge, it was found that 12 test takers had the highest score of 80.00 percent and the lowest score of 61.6 percent. The assessment of practical skills by demonstration and interview. There were 2 out of 3 assessment stations and 10 failed the assessment, 11 passed the assessment and 1 failed the interview.

4.4.3 Comparison results between knowledge assessment results of personnel in the parcel and product delivery business. International Express Parcel Management Division with the management of domestic express parcel delivery

Table 9, the results of comparing the differences between knowledge assessment results of the personnel in the parcel and courier business in international express freight management group and the domestic express freight management group found that t-test=7.142, sig=0.000, indicating that the two groups are different. All employees who pass the assessment in the domestic express logistics group have passed the exam. While there is only one employee in the group International Express Freight Management with passing results therefore makes a difference.

Table 9. Comparison of the differences between knowledge assessment results. of personnel in the parcel and product delivery business. International Express Parcel Management Division with the management of domestic express parcel delivery

Group Study	N	Mean	t	Sig
international express freight management	10	44.10	7.142	0.000
domestic express freight management	12	72.92		

** The significant level at 0.05 (P ≤ 0.05)

5. DISCUSSIONS

5.1 Development of parcel and courier professional competency

Results from the workshop by 20 experts. As a results of professional competency development in parcel and courier

business. It was found that competency in International express parcel and courier management has Key Function consisting of 101 packing and delivery of documents, parcels and goods 5 Unit of Competency 102 import management Documents and express parcels from oversea customers. 15 Unit of Competency and 103 to manage the export of documents and express parcels from oversea customers 10 Unit of Competency and competence. The domestic express parcel and courier management has been analyzed and considered by experts with Key Function Consisting of 201 packaging and delivery of documents, parcels and goods, 5 Unit of Competency, 202 handling domestic express parcels, 13 Unit of Competency and 203 handling domestic express parcels, 12 Unit of Competency. Because the researcher has analyzed and determined performance from professional owner to use as a standard for developing personnel in the professional field to have higher potential. It will help Thailand to compete in the industry. Professional Competency Development is to develop personnel to have more potential. It is an important factor in creating a competitive advantage with other organizations. It is also the key to making the organization successful as well.

The development of parcel and courier professional competency is carried out through a process of participation between real professionals and professionals with relevant experience in parcel and transport. The workshops with the two working groups produced a flow chart with units of competency (UoC), elements of competency (EoC), performance criteria (PC) and assessment guidelines. According to a Competency Framework resulting from the Competency Approach can be used as a benchmark to determine skill scarcity and can support the provision of appropriate training [30]. Therefore, it can be concluded that a Competency Approach is a suitable method for developing competency. International express parcel and courier management division consists of 3 lines: international express parcel and courier staff; express parcel and courier customs clearance staff; and international express parcel and courier executives. The line consists of 40 UoC and 137 EoC. The domestic express management line consists of two lines of working staff: express drivers and domestic express parcel and courier staff. This line has 40 UoC and 160 EoC in line with the research [31]. Multimodal transportation management is composed of 3 key functions; 1. Operation of a multimodal transportation service business, 2. Management of multimodal transport services, 3. The development of multimodal transport management classified by divisions and competency

components. The results showed that 10 UoC and 27 EoC.

5.2 Development of professional competency assessment tools for parcels and couriers

The results of the development of a career competency assessment tool in parcel and courier business. The tool assesses knowledge using a theory test and four multiple-choice skills, assessed through practical demonstrations and job interviews. Then use the tool to assess the suitability of the career competency assessment tool in the parcel and courier business by experts. It was found that the overall assessment results were appropriate at a high level and assessed the consistency of the performance assessment tools. This is because the developed tool utilizes the performance obtained for the purpose of the tool design. Therefore, the developed tools are of good quality. This quality tool enables accurate and reliable assessments. Before evaluating with employees, the quality of the equipment should be checked every time [32]. The Assessment of Quality Improvement Knowledge and Skills (AQIKS) detects an increase in QI knowledge and skills among pediatrics residents who participated in a QI curriculum, with better interrater reliability than currently available assessment tools. Quality checks by having experts consider the content coverage of questions. Each item can be measured according to the specified content and the results of all expert considerations are used to calculate the IOC index according to Content Validity was conducted by experts. The overall test item-objective congruence (IOC) was 0.91 which means they were acceptably congruent with the objective of the study [33].

5.3 Parcel and courier professional competency assessment

1. The line of international express parcel and courier management. The knowledge assessment reported that none of the 10 assesseees failed the assessment. This is because they have specific knowledge in the work they do. Some perform only the import customs management and some only on the export customs management, and this is the reason they can finish the test only on the work they perform. In addition, the assesseees did not prepare to seek additional knowledge other than the knowledge and experience of their routines at work. Hence, the overall assessment result was not passing the set criteria. And the result of the performance assessment reported that none of the 10 assesseees passed the overall assessment which refers to the performance assessment criteria of both the demonstration and the interview. Considering individual aspects of performance assessment, only 1 assesseees passed the demonstration and 2 assesseees passed the interview. This is because some of them work as work station staff so they are unable to complete the import procedure record. For those in export work, since data record files on paper are currently no longer in practice but assisted by technology, some of the assesseees were unable to do the export procedure record. Moreover, some of them do not perform both the import and export customs procedures but take over to process the delivery of documents and hence were unable to do both the import and export procedure records. This is why raters are reported to fail the overall rating consistent with the research [34] which shows that there is no clear career path for logistics workers. Views on the quality of private logistics training providers are mixed and logistics career training is not yet widely available.

2. The line of domestic express parcel and courier management. The performance assessment showed that there were 4 assesseees who passed and 8 assesseees who failed the assessment. The reason the assesseees were unable to calculate service charges was that in their work they mostly rely on a program to calculate the volume of parcels and goods so they forgot or did not know the calculation formula performed by electronic devices. Moreover, they build on actual experiences at work and failed to use the service charge tables provided in the question, hence resulting in miscalculating service charges. The interview assessment found that 11 assesseees passed and 1 assesseees failed the assessment. The one who failed was due to having specific duty as a checker without knowing about the receipt, transfer, and loading of goods onto the truck, hence they were unable to answer the examiner's questions. This research is consistent with the study [35]. The evaluation of professionals in general warehouses found that those who were assessed individually did not pass the criteria of the instrument. The knowledge and practical scores were quite low.

3. Comparison between knowledge assessment results of personnel in both groups of parcel and courier businesses. It was found that $t\text{-test}=7.142$, $\text{sig}=0.000$, indicating that the two groups were different. All employees who have been assessed in the domestic express freight management group have passed the exam. While there is only one employee in the group International Express Freight Management with passing results Therefore, the heterogeneity test in the heterogeneity test considers the knowledge assessment results of employees in each group. When using the difference test, the t-test is more reliable.

6. RECOMMENDATIONS

6.1 Recommendations for this research

1. In this research, only one level of experiment was performed. There are 6 levels of professional competency development, so further research should be undertaken at all levels.

2. Development of professional competencies in parcel and courier business in 2 types of work: international express parcel handling and domestic express parcel work. Packaging and transportation, express delivery, and e-commerce, etc.

3. Assess the quality of the tool by looking for quality from Validation Content from experts only because samples are limited. Therefore, it cannot be tested for accuracy. Subsequent research should use assessment tools to determine the Reliability value from a particular group of employees before evaluating the actual employee performance.

6.2 Future research recommendations

1. Professional competencies should be used to develop teaching and learning curriculum in vocational institutions. It prepares people to enter the profession. As students in the course develop after graduation, they are able to work according to their professional competence in the workplace in which they work.

2. Should use professional competence to develop Training Modules to develop employees to have more abilities. Higher potential personnel will work more efficiently. Of course, in the end, it also increases the potential of the organization.

3. Should use professional competence to expand the results of employee evaluation according to the line of work. It is used to develop employees' career paths and prepare individual self-development plans. It is self-development to have desirable working behaviors to achieve effective performance of the organization.

7. CONCLUSION

This paper provides information on the development of professional standards and professional competencies that enable practitioners to work to professionalized standards in the logistics profession for the benefit of the country's manpower development [36]. A Competency framework for humanitarian logistics practitioners is imagined. The benefits of a performance-based approach are being studied and discussed more and more. This includes introducing transparent standards and increasing public accountability. Competency development comes from representatives of professional associations, then proceeds with the development of performance appraisal tools and can be tested and evaluated together with operators in the workplace. Because the appraisers may not be prepared to assess, the assessment results are lower than the specified criteria.

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