Competency Modeling at an International Freight Forwarding Company in Bangkok, Thailand

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Abstract

This study presents a competency modeling exercise conducted at a company located in Bangkok, Thailand. The company provides international logistics and freight forwarding services. The findings of this study include the key competencies and competency gaps, as well as the organization development methods to fill those competency gaps. The study identifies the need for competency modeling and management based on the company's strategic plan. Based on the review of the literature and the identification of one in-depth interview and multiple focus groups as the data collection method, a competency modeling process is devised. Referring to the data collected from the in-depth interviews and focus group discussions; the authors present the competency modeling process and identify the gaps for each job category. In the latter part of the study, the authors present the organization's development methods, recommend ways to fill the competency gaps, and indicate the relevance of updating the competency scorecard every year. This study will be helpful for human resource managers, line managers, and supervisors in the logistics and supply chain industry. Moreover, the findings of this study will be helpful for the employees of such companies and their leadership and management alike. Considering the changes brought about by the pandemic, this study can be used by other logistics service providers as a benchmark for competency management.

Keywords: Competency modelling, Competency scorecard, Competency management, Organization development, Post pandemic, International freight forwarding company, Bangkok

Introduction

Logistics services are widely recognized as an essential element of supply chains because they facilitate the movement of goods from one point to another. Winkelhaus and Grosse (2020) indicated the significance of logistics 4.0 (reducing costs and generating competitive advantages) considering the challenges currently faced by organizations, including shortened product life cycles, globalization of markets, demographic changes, and changing customer demands. Industry 4.0 has initiated a logistic transformation, and the human factor

adds complexity to logistics and supply chain services (Cimini et al., 2019). Frederico (2021) and Grzybowska et al. (2020) indicated that Industry 4.0 is much more than just about the adoption of technology because it also involves people skills. Integrated logistics systems need competent human resources (Sangka et al., 2015). Overall, the dynamism and complexity of Industry 4.0 points towards the criticality of human skills to being able to adapt to constant advancements and changes and support the future agenda of supply chains (Liboni et al., 2018). The skills and knowledge of human resources in logistics are essential factors for the future success of Industry 4.0 and the movement toward industry 5.0. However, a World Bank study of logistics (Thailand Economic Monitor, 2021) reported the significant challenges businesses face in several countries, both developing and developed, regarding recruiting a workforce with adequate competencies in logistics and supply chain management. McKinnon et al. (2017) also identified the shortage of personnel in the logistics and supply chain services, further highlighting the skill gap in this industry and the importance of developing these competencies. Especially in the post pandemic world, the digital and service-related competencies will be essential for logistics and supply chains (Fu, 2020; Gurbuz & Ozkan, 2020).

Competencies are a combination of knowledge and experience. Previous empirical studies, such as the research by Derwik et al. (2016), suggest that competencies are related to the underlying characteristics that enable people to perform well. Competencies are a superior measure of human capital because instead of concentrating on personality and behavior characteristics, competencies detail the employees' knowledge, skills, and attitudes and the effect these characteristics have on the employees' job performance (Salman et al., 2020). Therefore, the competencies of employees are the key elements to organizational success in several business sectors (Cohen, 2015). Campion et al. (2011) defined competency models (sets of competencies) as "collections of knowledge, skills, abilities, and other characteristics that are needed for effective performance in specific jobs" (p. 226). Competency modeling is identifying an essential set of competencies for a company and its functions (Kaur & Kumar, 2013; Yuvaraj, 2011). Competency management refers to the alignment of competency models with other HR systems. The HR functions of hiring, performance management, training and development, and compensation and benefits are tied to the competency models. As a crucial part of the human resource strategy, the modeling and the alignment of competencies affects productivity and efficiency, which enhances organizational effectiveness. With the emergence of Industry 4.0, core competencies are those intangible assets that help build a business strategy and lead to a sustainable competitive advantage. Therefore, organizations should implement a competency modeling process to identify gaps between their employees required and actual competency levels.

Based on the importance attached to the competencies of employees in Industry 4.0 and the post pandemic business landscape, this study implements competency modeling in a freight forwarding company in Bangkok, Thailand. The company examined in this study is a privately owned full-range info-logistics provider that offers a comprehensive portfolio of air, sea, and land transport, warehousing solutions, and other value-added services such as customs clearance and IT solutions. With over one-third of a century of expertise in information

technology and supply chain optimization, the company designs tailor-made services that enable its customers in a wide range of industries to deliver competitive benefits to their customers across the world. Its subsidiary in Thailand was established in 2008 and is one of the fastest-growing companies in the country. Presently, the Thai subsidiary has more than 80 employees. In the next three years, the company plans to grow and become one of the top 20 global air and ocean transport and logistics services providers. The company's name is not disclosed in this paper at the request of the company's officials.

Given the shortage of required skills in the workforce (McKinnon et al., 2017), the company must improve its logistics competencies and service quality. Because logistics is a people's business, the key to the company's success depends on the quality of its employees. Therefore, the company wants to conduct competency modeling to ensure that its human capital remains a competitive advantage. Therefore, this study aims to conduct a competency modeling exercise for a freight forwarding company and uses the outcomes to help design an organization development program. The international fragmentation of production lines, international supply chains, and increasing demand for growth and integration of logistics services providers has brought a huge market opportunity to expand logistics companies (Kowalski et al., 2015). In Thailand, the advent of the ASEAN Economic Community (AEC) in 2015 has created a single market and product base, free flow of goods, services, investment, capital, and labor (Invest in ASEAN, 2021) with the potential market size of 660 million consumers (Thailand's Board of Investment, 2021). In this emerging business landscape, the findings of this study will benefit other freight forwarding organizations and logistics firms in Thailand and Asia by setting an example of how to define and establish their employees' competency levels. With this understanding, these firms can narrow their competency gaps and implement proper HR strategies with development planning for their employees while building a sustained competitive advantage in the post pandemic world.

Review of literature

Vazirani (2010) stated that competencies are not just skills and readiness to perform. However, they also include the desire to perform, and therefore competency models must be tied to the current roles to anticipate any future skill requirements. This section briefly reviews the definitions of competency, competency models, and the use of a competency scorecard for organization development. The section also presents the model and the approach used in this study.

Competencies and competency models

Competencies are "underlying characteristics of people that indicate ways of behaving or thinking which could be generalized across a wide range of situations and long periods" (Vazirani, 2010, p. 124). Competencies are linked to business objectives and strategies (Campion et al., 2011), and help individual employees excel in their specific jobs or positions (Soderquist et al., 2009). Taking an activity-based view of management, Derwik et al. (2016) suggested that competency is not just a capacity or an attribute of individuals or jobs. However,

it also represents interactions between individuals and their jobs at hand, and therefore it is essential to understand the manifestation of competencies in terms of behavior. Competencies are the building blocks of competency models (Russo, 2016). Organizations use competency models as descriptive tools that identify the combinations of knowledge, skills, abilities, and other characteristics needed to operate in a specific role in a job (Campion et al., 2011). Competency models are organizing frameworks that translate organizational strategies into specific behaviors and performance indicators (Chouhan & Srivatava, 2014). Competency models help organizations take a unified approach to strategic human resource management, generating desirable results for organizational and individual development (Vazirani, 2010). Soderquist et al. (2009) stated that the initial formulation of competencies is the Achilles Heel in the competency management process, but it is the core activity in developing organizational capabilities. Competency models must be tailored to organizational needs (Chouhan & Srivatava, 2014). They must be future oriented in that competency models do not document the status quo but help plan for the future (Campion et al., 2011). Soderquist et al. (2009) suggested that a comprehensive competency model must indicate the critical skills and behaviors of the organization. Sengupta et al. (2013) said that the effectiveness of competency models depends on the extent to which they can balance between organizational requirements, job requirements, and personal requirements with a futuristic vision and on how they are linked with the HR systems via an evaluation plan.

Competency modelling process

Studies such as those conducted by Vazirani (2010), Campion et al., (2011), and Yuvaraj (2011) highlighted the significance of involving multiple levels of employees in the process of developing competency models. Campion et al. (2011) noted the difference between job analysis and competency modeling. Unlike job analysis, competency models are generated top down and in a deductive way, starting with the definition of competency and then working their way down to individual employees (Campion et al., 2011). Chouhan and Srivatava (2014) proposed three models for competency modeling: single job (only the most critical job needing revision is mapped), multiple jobs (families of jobs for each category are mapped together for uniform HR related uses), and a one-size-fits-all approach (one competency map for each level, for example, managerial level). Russo (2016) proposed a 10-step process to build a competency model. Sengupta et al. (2013) suggested a three-phase comprehensive competency model to optimize the competencies and develop a sustainable competitive advantage.

Although the freight forwarding company referred to in this study has always used skills and competencies as the basis of their employee training and development related activities, the company needs an organized framework to conduct competency mapping or management. As a result, there needed to be more understanding and planning of competency development. Based on a review of competencies and competency models, the current study uses a combination of the multiple jobs approach (adopted from Chouhan & Srivastava, 2014) and the three-phase comprehensive competency model (adopted from Sengupta et al., 2013) for defining and assessing competency gaps in the company being studied, this study uses the

approach of Russo (2016) and Takey and de Carvalho (2015). Figure 1 below depicts the approach to competency modeling taken in this study. Referring to Figure 1, the current study utilized three phases of competency identification, competency assessment, and competency alignment towards organization development to plan and implement competency modeling in the Bangkok-based logistics and freight forwarding company under investigation. The section on methodology will detail the research design of the study to achieve the objectives of this study.

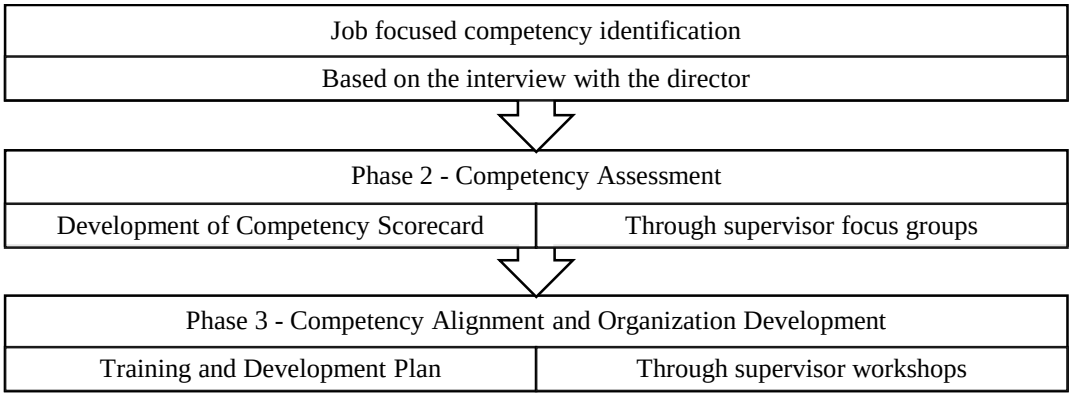

Figure 1 Approach taken in this study.
Source: Authors (2022)

Methods

From an HR perspective, the change from an information society to a knowledge society and the emergence of megatrends such as e-commerce have necessitated the development of new competencies (Kotzab et al., 2018). Kipper et al. (2020) pointed out that companies should develop their workforce to the highest levels of competencies to face the complexities inherent in Industry 4.0. Competency modeling is an opportunity for long-term growth (Yuvaraj, 2011) and long-term survival (Pryor & Smith, 2019). Any long-term change may prove challenging for an organization without a clear direction, strong leadership, and the participation of employees in the process. Hence, the participation of the managers and supervisors was considered necessary for the planning and implementation of the competency modeling process in the current study.

As opposed to the standard research designs whereby data collection, data analysis, and implementation all happen passively, the competency modeling exercise involved interactive problem analysis, democratic decision making, and active reflection to revisit and revise the processes of change and development (Keahey, 2021) and "understanding of the phenomena through cooperation between multiple stakeholders" (Yang & Sung, 2016, p. 25). Shamim et al. (2016) suggested that decentralization facilitates an organization's compatibility with Industry 4.0. Overall, it was concluded that the interaction and discussion regarding problem analysis (identification of competencies and defining them), decision making, and collaboration (development of a competency scorecard and competency model) would help the

company prepare to face the dynamism and complexity of the changes required to face Industry 4.0. Using the three-phase comprehensive competency model (adopted from Sengupta et al., 2013), the authors/researchers worked with the employees of the freight forwarding company under study to plan and implement a multi-job competency model. The following section describes the other details of the methodology.

Population and sample

The population for the study included all the employees of the freight forwarding company under study. There are 86 employees in the organizational chart for the company. However, for this study, a sample of respondents was selected to help the authors identify and develop competencies and competency models, assess the gaps and plan for organization development. This group of respondents also acted as co-researchers in this project. Line managers, assistant managers, and department heads from different departments were selected to participate in this study. These 15 people had a common interest and were informed about the implementation of this project. Apart from this group, the regional director was also involved in Phase 1 and Phase 3 of the process. From the nine departments in the company, 15 managers and assistant managers (designated as department heads and line managers in the company organizational structure) were selected for the study. To adhere to research ethics, the authors provided the details about the study's objectives explained the confidentiality and anonymity clauses, and clarified that participation was voluntary. In addition, the authors explained to the participants that they could withdraw from the study at any time if they felt uncomfortable. Once all the respondents confirmed their participation, the authors requested they sign the consent forms. Although no names or other personal details will be revealed in this study, the authors have the consent of the participants and the regional director of the company to report on and use their findings to achieve this study's objectives as explained to the participants during their orientation before they signed their consent forms.

Sampling technique

Of the two sampling techniques, the non-probability technique enables a more careful selection of respondents to ensure their representativeness to the study population. Etikan et al. (2016) indicated that in addition to their qualifications, knowledge, and experience, the participants should also be willing to give information and to share their experiences and opinions in a proactive and reflective manner. As noted before, the current study implemented a competency modeling exercise in a company. Therefore, to ensure the participation of respondents who "hold different and important views about the ideas or issues at the question" (Campbell et al., 2020, p. 654), a purposive sampling technique was employed in the present study. The researchers/authors used the job positions and job descriptions of the managers and department heads to select a group of respondents who knew about the problem or the purpose of the study (Rahi, 2017).

Data collection methods

In this qualitative research, the data were primarily collected in spoken or written language rather than in ~~a~~ numerical form. The sources of data included focus groups of participants, and document reviews. and an interview with the regional director. Two types of data were used in this study**.** Primary data were collected through an in-depth interview with the study**'**s regional director in Phase 1**.** This interview had three goals, the first of which was to understand management' s perspective on the mission, vision, and strategic goals and industry trends in the post pandemic world in comparison with the competencies required by the company. Secondly, the interview aimed to identify the company' s main required competencies in the company. Thirdly, the interview also aimed to understand the regional director's expectations about competency modeling from the human resources department.

In addition to the in-depth interview, primary data were collected through 18 focus group discussions conducted with the department heads, the line managers, and assistant managers of various departments**.** Focus groups were used to identify the company's required competencies and implement the competency modeling process. The objectives of the focus groups were: 1) to identify and define the competencies and proficiency levels of the employees in each function and 2) to review existing employee competencies and the adjacent behaviors and proficiency levels of the employees. Then data identified in points 1 and 2 could be used 3) to identify the competency gaps of the employees and 4) to propose an organizational development plan. In addition to the two types of primary data, secondary data were also collected from a review of documents, including the employee engagement survey, the job descriptions of the employees, and the previous performance appraisals of employees**.**

Data collection instruments

Two types of data collection instruments were used in this study. The in-depth interview was conducted with the help of an interview guide, and a questioning route was developed for the focus group discussions. Both instruments included open questions, general and detailed questions, probes, and prompts to encourage the interviewees. The instruments are described in the following.

In-depth interview guide.

Morris (2015) suggested that the structure of an in-depth interview depends on the goals and objectives to be achieved. Based on the deductive reasoning argument (presented in Casula et al., 2021), a structured in-depth interview was conducted with the regional director for the present study. The interview guide was developed on the suggestions from Voutsina (2018), Moser, and Korstjens (2018) following a 5-step process. The interview was voice recorded and transcribed. Some examples of questions for the interview guide are 1) "What competencies are important in the logistics field concerning the industry trends?" 2) "What key competencies can you link with success or failures in the business in the future?" and 3) "What should be done to improve the competencies of the employees at your company?"

Focus group discussions.

The seven-step process proposed by Moser and Korstjens (2018) was used to develop the focus group questioning route. The results of the focus group discussions were recorded in the form of summaries. The focus group questioning route followed a logical and conversational pattern. It included opening questions such as: "Do you think that employees need skills to be successful in their work?" and "What competitive advantage can an organization develop to stay competitive for the long term in the logistics business?" Thereon, the route targeted more specific questions such as: "What competencies do employees need for managerial and execution jobs?" and "Can you rank the competencies from the list of competencies proposed by this previous study?" (Lists of the competencies first handed out with blank spaces for rankings and then the discussion started by comparing the ranks). The questioning route followed a rapport building – open questions – specific questions path to clarify the company specific competencies.

Data collection procedure

Based on the in-depth interview with the regional director and the review of previous studies, the authors developed a multi-job framework of competencies for this study. Taking this multi-job framework forward, the authors conducted focus group discussions with the line managers and department heads, asking them to define the competencies and the proficiency levels based on the specific job functions. The invitees for each focus group were based on the multi-job framework for 11 job functions and 38 job positions. The data collection was conducted as follows:

1. **Phase I Competency identification** - In-depth Interview with the Regional Director – Identify the significance of competencies, competency modeling, and organization development in organizational success in Industry 4.0. Identify the main competencies of the organization.
2. **Phase II Competency Assessment** – Review the list of main competencies and expand to specific competencies. Refer to the job descriptions for a family of jobs in each department and function and develop the list of specific competencies to ensure that these competencies will help fulfill the job requirements and purposes. Develop a competency dictionary for the primary and specific competencies. Lastly, develop the definitions of the proficiency levels for each job function based on specific traits and behaviors. Consequently, 123 competencies were defined and assigned proficiency levels.
3. **Phase III Competency alignment and plan for organization development** – After the list and definitions of competencies and the proficiency levels of competencies for the main and specific competencies were developed, each manager and assistant manager compared each of their department's employees against the required competencies and proficiency levels, providing examples in terms of traits and behaviors. References to such behavior came from previous performance appraisals of the employees. At the end of this stage, a competency scorecard was finalized which depicted the current competency gaps of employees in the company. A second objective of this round of focus group discussions

was to indicate how these competency gaps could be filled. Department heads and line managers pointed out ways the employees could be trained or developed to fill their competency gaps.

Data analysis methods

The data were gathered from in-depth interviews, focus group discussions, and document analysis. Using deductive content analysis, the in-depth interview transcript and focus group summaries were analyzed to derive a list of competencies, definitions of the competencies, and the proficiency levels of all competencies (Kyngäs et al., 2020). With the help of descriptive categories, sub-categories, and narrative summaries (Moser & Korstjens, 2018), the authors developed a fair copy of the focus group findings regarding the list of competencies, the definitions of the competencies, and the proficiency levels of the competencies. The focal point of this study was the development and implementation of the competency model. The data's validity and reliability were assured in the common interests of all participating members as it provided mutual benefits for all the related parties.

Findings and discussion

This study implemented the planning and implementation of competency modeling and organization development planning in a freight forwarding company in Bangkok, Thailand. The methodology used in this study was applied qualitative research. The study's findings are described as follows in the order of data collection.

Phase I – Competency identification

Findings from the employee engagement survey 2021

Based on the latest Employee Engagement Survey 2021, the company under study is a great place to work, as it is financially stable, highly secure, and a supportive employer. More than 95% of the employees who participated in the survey are proud to work with the company. Notably, the data for this survey is confidential to the company, and the researchers were only allowed to use the summary of the results. Overall, the employees commended the company for being a great employer and indicated that they planned to stay for 12 months (or even longer). The employees also registered satisfaction with the company's responses to the COVID-19 pandemic (as an employer and as a customer service provider). The employees confirmed and recognized the company's efforts and investment during the last two years to create a more satisfactory workplace for them every day.

Nonetheless, the employee engagement survey also identified some areas for improvement. This included the introduction of awards for the best performing employees, the improvement and development of leadership teams, the improvement of physical working conditions in the offices and warehouses with better health and safety measures at all workplace settings, a review of operational teams to address the high workload during the pandemic, and the application of a performance-based remuneration model. Overall, the employees felt

engaged and were proud to work with the company but wanted to see some changes in the HR processes, as mentioned above.

Findings from the in-depth interview with the regional director

The regional director agreed that employees' competencies of its employees is important for an organization's success in the logistics industry, as companies in this sector rely heavily on people. Thus, it is crucial that the employees feel engaged with the company and can grow and develop within their organization. The director also supported the view that to bring systematic changes to human resources management, the employees' competences must be linked with the company's mission, vision, and strategic objectives. The director suggested that the focus for competency modeling should be long term, such that the employees and the company should plan and develop a long-term development plan. In his view, the relevance of competencies is visible when designing or re-designing jobs in terms of horizontal and vertical movement, such as job enlargement, job enrichment, promotions, transfers, job rotations, and job sharing. The regional director also supported the view that contextual factors such as compensation and benefits and the employees' passion are important motivators in their jobs. Because competency modeling implementation requires high commitment and full engagement from the line management, department heads and HR, he insisted on their involvement in the competency modeling process. From the regional director's perspective, competencies must be clear and easy to understand and communicated to all employees. He suggested that soft skills will continue to become more important and adaptability is considered a key competency. In his view, the specific methods that can be used for competency development include seminars, on-the-job training, and simulations. Overall, he encouraged using methods to clarify required to the job incumbents. He also suggested that competencies should be divided based on staff and managerial functions, but also that competencies must include common functional competencies for the logistics and supply chain-related technical expertise.

Based on the content analysis from the in-depth interview and the results of the employee engagement survey 2021, the required main competencies were classified into three categories: Core Competencies, Managerial Competencies, and Functional Competencies. These three categories are defined as follows,

1. **Core competencies** will apply to all employees.
2. **Managerial Competencies** will apply to all leadership positions.
3. **Functional Competencies** will apply to the employees based on each job function.

Phase II – Competency assessment (Findings from the Focus Group Discussions with the Heads of Departments and Line Managers)

The focus group participants discussed and identified the specific competencies required for each Core, Managerial, and Functional competencies. The competency definitions were developed and defined. During the discussions, the authors and the department heads formulated a competency dictionary for each job function based on the job descriptions and

expected behaviors as well as previous performance appraisals. Table 1 provides more details on the focus group discussions.

Table 1 Schedule of Focus Group Discussions

Date	Meeting Details	Participants/ Departments
14/09/2021	WORKSHOP # 1 Topic(s): Part#1: Introduction, competency concept, the importance of competency Part#2: Identify Specific Competencies	RD/MD, department heads, managers, assistant managers, HR expert
22/09/2021	WORKSHOP # 2 Topic(s): Part 1: Review Core Competency Name Part 2: Identify Managerial Competency	RD/MD, department heads, managers, assistant managers, HR expert
28/09/2021	WORKSHOP # 3 Topic(s): Part I: Identify Functional Competency of each function	RD/MD, department heads, managers, assistant managers, HR expert
18/10/2021	WORKSHOP # 4 Topic(s): Functional competency of MANGEMENT	MANAGEMENT ASSISTANT Manager, Assistant Manager, HR manager
18/10/2021	WORKSHOP # 5 Topic(s): Designing Competency: SEA CARGO	SEA CARGO Manager, Assistant Manager -HR, Manager Sea Cargo, Asst. Manager Sea Cargo
18/10/2021	WORKSHOP # 6 Topic(s): Functional Competency: AIR CARGO	AIR CARGO Manager, Assistant Manager -HR, Manager Air Cargo, Asst. Manager Air Cargo
18/10/2021	WORKSHOP # 7 Topic(s): Functional Competency: TQM	TQM Manager, Assistant Manager -HR, Manager TQM

Date	Meeting Details	Participants/ Departments
18/10/2021	WORKSHOP # 8 Topic(s): Functional Competency: GND	GND DEPARTMENT Manager, Assistant Manager -HR, Asst. Manager GND
18/10/2021	WORKSHOP # 9 Topic(s): Functional Competency: IT Support	IT DEPARTMENT Manager, Assistant Manager -HR, IT Support
19/10/2021	WORKSHOP # 10 Topic(s): Functional Competency: COMMERCIAL (BDM AND KAM)	COMMERCIAL (BDM&KAM) Manager, Assistant Manager -HR, Manager (BDM), Manager (KAM)
19/10/2021	WORKSHOP # 11 Topic(s): Functional Competency: WH & LOG DEAPRTMENT	Warehouse & LOG Manager, Assistant Manager -HR, Manager Logistics
19/10/2021	WORKSHOP # 12 Topic(s): Functional Competency: CUSTOMS CLERANCE	CUSTOMS CLERANCE Manager, Assistant Manager -HR, Manager Customs
19/10/2021	WORKSHOP # 13 Topic(s): Functional Competency: FINANCE & ACCOUNTING	FINANCE& ACCOUNTING Manager, Assistant Manager -HR, Manager Finance & Accounting
19/10/2021	WORKSHOP # 14 Topic(s): Functional Competency: HR & ADMIN	HR & ADMIN Manager, Assistant Manager –HR
27/10/2021	WORKSHOP # 15 Topic(s): Final Review Functional Competency Dictionary (Day I)	Manager, Assistant Manager -HR, Manager Logistics
29/10/2021	WORKSHOP # 16 Topic(s): Final Review Functional Competency Dictionary (Day II)	Manager, Assistant Manager -HR, Manager Logistics
11/11/2021	WORKSHOP # 17 Topic(s): Competency Matrix (Day I)	RD/MD, all department heads, managers, assistant managers, HR Manager and Assistant Manager

Date	Meeting Details	Participants/ Departments
12/11/2021	WORKSHOP # 18 Topic(s): Competency Matrix (Day II)	RD/MD, all department heads, managers, assistant managers, HR Manager and Assistant Manager

Based on the data analysis and discussions, the competencies for each competency category were demarcated as shown in Table 2.

Table 2 Main and Specific Competencies

Main competency	Specific Competencies
Core competency	Teamwork, Service Mind, Communications, Problem-Solving and Adaptability
Managerial competency	Leadership, People Management, Change Management, Entrepreneurial and Commercial Awareness, and Embrace Digitalization
Functional competency	According to Manpower Services Commission, 1986, technical/ functional competencies were referred as "the ability to perform tasks in the job within an occupation, to the standard expected in employment". Based on the company's structure, there were 11 job functions with 38 job positions in total and 113 technical competencies were defined.

Identification and definition of proficiency levels

In order to measure the employees' competency levels, it is important to identify the proficiency levels. Based on the main and specific competencies definitions, this study applied the competency assessment guidelines from Rosso (2016). The focus group discussions used a 5-point scale to measure the competency levels of the employees. Each of these levels of proficiency reveals was defined with the help of the traits and behaviors that the job incumbent was expected to demonstrate. Following the recommendations by Campion et al. (2011), the proficiency levels were defined using a unique organizational language. The levels included Beginner/Learner (Level 1), Basic (Level 2), Proficient (Level 3), Expert (Level 4), and Role Model (Level 5). Table 3 provides definitions of the proficiency levels of the competencies.

Table 3: Proficiency levels and Definitions of Proficiencies

Proficiency Levels	Definitions of the proficiency levels
Beginner/Learner (Level 1)	Limited competency required for jobs~~,~~ and inability to analyze or solve problems.

Basic (Level 2)	Basic understanding of work and job responsibilities with the possibility to ask for advice from superiors, attempt to analyze problems, and ability to apply competency for the simplest situations.
Proficient (Level 3)	Detailed knowledge, understanding, ability to analyze problems and solutions with less supervision. Frequent display of success in competency and ability to assist others.
Expert (Level 4)	-Highly developed knowledge and understanding, ability to apply knowledge to other areas. Applying competency in difficult situations. -Application of the competency required to job and organization successes (total mastery). - Ability to teach or coach, others, and develop of necessary resources on competency.
Role Model (Level 5)	-Specialist and Subject Matter Expert (SME) within his/her area and ability to apply skills and work across various functions. - Being a role model for others and a key source of information with advice to others. Ability to teach competency comprehensively. -Strategic focus, an expert in and concepts and processes, ability to develop new applications and implement the new processes in workplaces.

Phase III – Competency Alignment and the organization development

Competency alignment – What competencies are needed *viz a viz* what the current employees have.

At this stage of the competency modeling process, the department heads and line managers conducted a competency gap assessment for each of their department employees by comparing the proficiency levels of competencies with the profiles of all employees. The competency gap was the difference between the required and the actual competencies. Then, towards the end of this focus group discussion, a competency scorecard was developed for each employee. This scorecard marked the end of the competency modeling process and the beginning of the organization development plan stage.

Organization development plan

Based on the competency scorecard, competency gaps were found in various job functions and different positions**.** Table 4 provides the details of the competency gaps**.**

Table 4 Competency Gaps

Competency	**Gaps (in number of employees)**
Core Competencies	

Competency	Gaps (in number of employees)
Adaptability	19
Problem Solving	11
Communication	10
Managerial Competencies	
Embracing Digitalization	14
Leadership	7
People Management	7
Change Management	2
Entrepreneurial Mindset	2
Functional Competencies	
Detail Orientation	10
Digital Sales Presentation	9
Industrial Knowledge and Awareness	7
Coordination	5
Time Management	5
Negotiation	4
Performance Achievement	4
Operational Excellence	3
Planning and organizing	3
Active Listening	3

This step highlighted the company's need for a training and development initiative to fill the competency gaps and upskill its workforce.

Rosso (2016) suggested that data on competency gaps is vital to assess and optimize the use and distribution of internal business resources and promote through adequate HR management. To connect the competency gaps with appropriate methods to fill them, Soderquist et al. (2009) suggested integrating the competencies into HR processes and systems. They argued the use of competency-based logic by human resource management. Campion et al. (2011) pointed out that organizational development is at the core of competency modeling and recommended using organizational development techniques to improve the cohesion between the usually disjointed HR systems. Keeping the objective of competency modeling in sight, during the focus group discussions, the department heads and line managers suggested ways to bridge the competency gaps in their departments.

In line with the recommendations of Russo (2016) and Takey and de Carvalho (2015), the current study adopted a three-legged approach to designing the organization's development plan. Russo suggested that the competencies be grouped into three areas: knowledge, knowhow (skills); and attitudes and behavior. Working with the participants of the focus groups, the authors combined this triad of competencies with the sequence of development activities

proposed by Takey and de Carvalho **(**2015**)**. Meanwhile, the regional director also suggested the use of specific methods for competency development, including seminars, on-the-job training, and simulations**.** Consequently, the organizational development plan illustrated in Table 3 was devised to bridge the competency gaps**.**

Table 3 Organization development plan

Specific Competencies	**Details about classification (Russo, 2016)**	**Suggested Training and Development method (Takey and de Carvalho, 2015)**	**Sources of data and Evaluation Plan**
Adaptability, Service Mind, Detail-Orientation, Responsibility and Accountability, IT Creativity, Product Knowledge, Entrepreneurial thinking, Coordination, Time Management, Negotiation, Performance Achievement, Operational Excellence, Route Planning, Cost Management, Global Stakeholder Co-operation, P&L Accuracy, Customer Retention and Development, Effective Communication, Digital Sales and Presentation, and Key Account Development Strategy**.**	**Attitudes/ Behavior (**Individual traits, characteristics, and qualities that drive the attitudes**)**	Competence gained with increased autonomy and by increasing other resources complemented with the use of on-the-job training, job enrichment, job enlargement, training interventions, and online courses	Source of data**:** Company Webinars/ External Trainer, Line Manager Evaluation Plan**:** Monthly/ Quarterly/ Yearly Performance Review conducted by the line manager based on customer feedback
Result-Orientation, Problem-Solving, Communication, Teamwork, Leadership, People Management, Change Management, Planning and Organizing, Active Listening, and Manpower Management	**Knowledge (**Cognitive processes and theoretical understandings that can be learned with education and training**)**	Competence gained under supervision/ manager**'**s guidance and coaching	Source of data**:** Line Manager/ External Trainer Evaluation Plan**:** Quarterly/ Yearly Performance Appraisal by

Specific Competencies	Details about classification (Russo, 2016)	Suggested Training and Development method (Takey and de Carvalho, 2015)	Sources of data and Evaluation Plan
Warehouse Safety and Security Management, WMS Program (WMS Ability), Knowledge of Laws and Company Regulations, Industrial Knowledge and Awareness, E-Commerce and WH Fulfillment Development, Tax Compliance, and Embracing Digitalization.	**Know-how** (Practical knowledge including personal experiences that can be learned by doing)	Competence gained with orienting execution and increased experience, with external training like seminars and simulations	Line Manager, Leadership Survey Source of data: Line Manager Evaluation Plan: Yearly Performance Appraisal by Line Manager

Referring to the suggestions made by the regional director, training, and development can be carried out through internal and external sources (McKinnon et al., 2017). Internally, the line management and department heads are responsible for educating and training. The human resources department will support these internal efforts by developing individuals or groups to increase their skills. In the meantime, there are external sources of training and development, such as logistics associations, higher educational institutes, and local and global vocational training institutions. Toward the end of the focus group sessions, the human resources department suggested working with the TQM team and department heads to develop the implementation plan. Methods such as coaching and mentoring for method-related skills, training interventions for service quality, online courses, company webinars, and external trainers were to be included in the implementation and evaluation plan. Moreover, it was decided that the human resources department would consult the department heads and line managers about implementing job enlargement, job enrichment, job rotation, and on-job training.

Implementation and evaluation plan

Based on the training and development methods proposed to fill the competency gaps, it was necessary to develop an implementation and evaluation plan. Therefore, the training and development were set to start from January 2022 onwards. The evaluation process was scheduled on a quarterly and yearly basis. This aliens with the company's quarterly target review and annual performance appraisal. It was important for the company's competency model to be sustainable with required updates on an annual basis. In the future, the HR

department and department heads must ensure that the job analysis is updated annually based on the updated set of competencies. The job analysis process and forms have been updated after this competency modeling exercise in 2021.

The future perspective of competency modeling

To keep the current plan updated, the company's management must provide a clear direction on their vision for the current plan. In this aspect, the HR processes of the organization must be updated; based on the necessary competencies at changing times. The HR should organize focus groups with the department heads once a year with the aim of updating the job descriptions and job analysis based on the updated competencies required for the jobs. A future complementary objective of these focus groups should be to define newer competencies with adequate actions to upskill the employees.

During the discussion about the organization development plan, the focus group participants also indicated that some competencies would stay the same despite the degree of disruptions happening worldwide. Examples of these are leadership, communication, creativity, problem solving, adaptability, commercial awareness, and client orientation, among others. However, some will keep changing considering changes in various aspects like technological advancement and automation or other external factors. For example, competencies required in the digital world include continuous learning innovation and network interaction. As a result, training and development methods need to be changed to align with the changing needs of representatives of each generation (Belolipetskaya et al., 2020). The company's management must be aware of the dynamic nature of the competencies and update them every year. The performance appraisal systems, rewards and recognition, and training and development systems should also be updated about the changed competencies. This is to ensure that incompetency does not interrupt the company's performance and the competent people stay in the company because they are being ignored.

Conclusion

Previous studies suggest that Industry 4.0 can only be sustained with the appropriate competencies and skills of the human factor. With this research premise, the current study conducted a three-step competency modeling exercise to identify, define and assess the competencies of employees working in a freight forwarding company in Bangkok, Thailand. The study used a multi-job competencies framework and a three-phase competency modeling process. With the help of one in-depth interview and 18 focus group discussions with 15 managers and assistant managers, a competency scorecard was developed. This scorecard depicted 123 main and specific competencies for 11 job functions from various departments. It used a 5-point proficiency level scale for all 86 employees. Toward the end of Phase III, the focus group participants suggested ways to fill the competency gaps by indicating appropriate organizational development activities to be included in an implementation and evaluation plan. The forthcoming changes will align the human resource management functions with the newly developed competency model to fulfill the employee expectations highlighted in the

engagement surveys and the expectations of the regional director in terms of the company's strategic objectives in the future.

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