

Competency Based Skills Development: A Case Study of a Dock Station Management Company in Thailand

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Abstract. *This study aims to develop a competency based skills development system for the logistics industry in Thailand. The objectives of the study were: (1) To identify competency required for employees in the sampled company; (2) to identify the actual competency possessed by those employees; (3) to identify methods of development to upgrade employees competency to meet the required competency levels; (4) to identify and develop specific industry competency based skills standards; and (5) to identify and develop competency based skills training curriculum for developing employees where necessary. A qualitative approach was employed with participatory action research as a guiding paradigm and competency development technique and case study as research strategies. Purposive and criterion samplings were applied in case selection. The company must employ not less than 100 employees and be willing to participate in the project. A dock station management company providing services on sea transport, warehousing and international freight forwarding was selected as a case for study in this research. The study reveals that the organizational structure of the company is comprised of four major sections: Booth Gate; CR Controller (CRC); CD Controller (CDC); and DC Documentation (DCD). A job analysis identified four main jobs, 11 tasks and 42 activities. In total there were 31 competencies, 31 competency models and 20 competency profiles. The results of the competency gap analysis revealed that: (1) Booth gate had 16 competency gaps out of 18 competencies, and 100% of the employees who occupied Junior CDC had competency gaps in the competencies of using English vocabulary in dock business, and understanding of specific conditions of each ship line; (2) CR Controller, it was found that employees who occupied the position of CRC Clerk had 10 competency gaps out of 18 competencies, employees who occupied the position of Junior CRC had 16 competency gaps out of 18 competencies; and employees who occupied the position of Senior CRC had 7 competency gaps out of 18 competencies; (3) CD Controller, employees who occupied the position of CRC Clerk had 16 competency gaps out of 19 competencies; employees in the position of Junior CDC had three competency gaps out of 16 competencies; and employees in Senior CDC positions had 13 competency gaps out of 16 competencies; (4) DC Documentation, employees who occupied the position of DCD Clerk had 19 competency gaps out of 20 competencies, employees in the position of Junior DCD had 14 competency gaps out of 20 competencies; and employees in Senior DCD had only five competency gaps out of 20 competencies. Based on the findings, the following skills development methods were recommended: On the job training, coaching, case study, self-study, lecture, simulation and demonstration. Four specific industry competency based skill standards were developed. In addition, a competency based training curriculum i.e., Container Depot Operation with seven training modules and 31 subjects was developed.*

Key words: Logistics Industry, Dock Station Management, Competency Based Skills Development System, Specific Industry Competency Based Skills Standard.

Introduction

Under the present very stiff business and economic competition human resource (HR) has become a critical source of business competitive advantage. The importance of people to the success of any organization is clearly emerging. McLean (1995) argues that

In most industries, it is now possible to buy on the international marketplace machinery and equipment that is comparable to that in place by the leading global firms. Access to machinery and equipment is not the differentiating factor. Ability to use it effectively is. A company that lost all of its equipment but kept the skills and knowhow of its workforce could be back in business relatively quickly. A company that lost its workforce, while keeping its equipment, would never recover (as cited in Becker, Huselid, & Ulrich, 2001, p. 6).

His view supports the resource-based view of the firm that “emphasizes the importance of having a highly qualified workforce which is different from and better than those of competitors (Armstrong, 2010, p.170).”

Unfortunately, for decades a vast majority of resources and effort have been invested in infrastructure and technological development assuming that strong infrastructure and high technology would bring about stronger competitive edges and sustainable success. However, the two major financial crises, the “Tom Yum Kung Crisis” originating in Thailand and the “Hamburger Crisis” originating in the United States, caused adverse effects to both developed and developing countries especially in Asia. The result of these two crises led to more appreciation and realization of the importance of HR in the success of companies and national economic and social development. Through learning by doing experience of implementing six infrastructure and physical capital led national economic and social development plans, Thailand has come to realize this fact and has begun to change the focus of development to people development in the seventh plan and dedicated the eighth plan as the total people development plan (Joungtrakul, 2010a). The emphasis of human resource development (HRD) has been continuing until the present tenth plan and the next eleventh plan to be implemented during 2012-2016 (Joungtrakul, 2010a).

Department of Skills Development (DSD), Ministry of Labour has been playing a key role in HRD since its inception. At present there are skills development institutes and centres located in each province all over the country providing skills development training and testing of skills according to the national skills standard to certify and recognize the skills of the Thai workforce. As part of its policy to support the implementation of competency based skills development in business and industry the DSD sponsored this study as part of a project entitled “the Project for Studying Models and Guidelines for Increasing Capability in Skills Development.”

Objectives

The objectives of the study were: (1) To identify competency required for employees in the sample company; (2) to identify the actual competency possessed by those employees; (3) to identify methods of development to upgrade employees competency to meet the required competency levels; (4) to identify and develop specific industry competency based skills standards; and (5) to identify and develop competency based skills training curriculum for developing employees where necessary.

Literature Review

The literature review in this section will be separated into two parts. The first part presents the review of concepts and theories related to competency based skills development. It is comprised of: (1) Competency-based human resource management (CHRM); (2) HRD; (3) training and development (T&D); (4) competency; (5) competency based skills standard (CBS); and (6) competency based skills development (CBD). The second part covers a review of research related to CBD.

CHRM: CHRM (Armstrong, 2010) “uses the notion of competency and the results of competency analysis to inform and improve the processes of recruitment and selection, employee development, performance management and employee reward. It therefore has an important part to play in all the major HR activities” (p. 170). To understand the scope of HRM it is best to see it as a system. As illustrated in Figure 1, (Armstrong, 2010) an HRM system brings together HR philosophies which describe the overarching values and guiding principles adopted in managing

people, HR strategies which define the direction in which HRM intends to go, HR policies which provide guidelines defining how these values, principles and strategies should be applied and implemented in specific areas of HRM, HR processes which comprise the formal procedures and methods used to put HR strategic plans and policies into effect, linked HR practices which consist of the approaches used in managing people, and HR programs which enable HR strategies, policies and practices to be implemented according to plan (pp. 11-12).

Based on this system HRD is a part of the total HRM system. We will review the concept of HRD next.

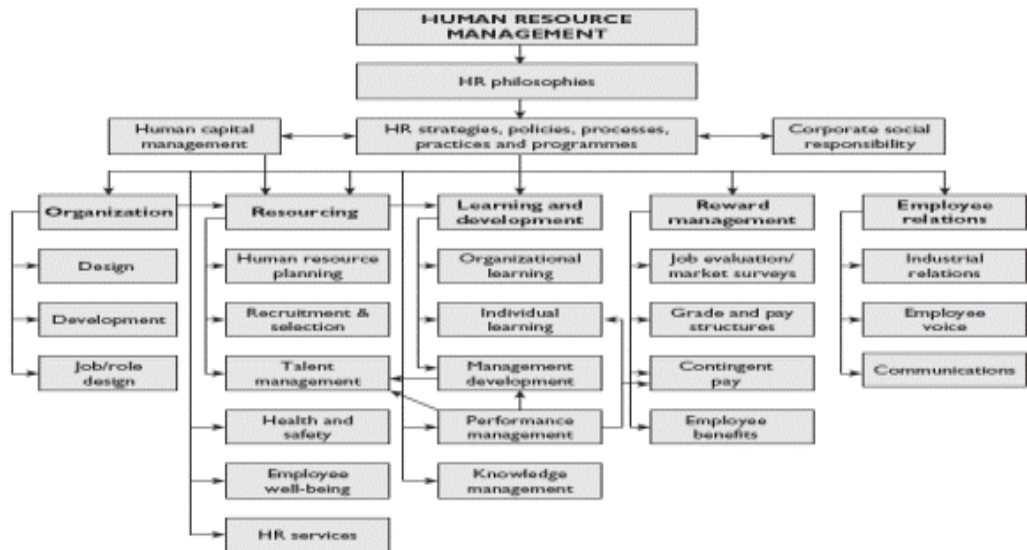


Figure 1. An HRM System (Source: Armstrong, 2010, p. 12.)

HRD: Several definitions of HRD are presented by different scholars in this field (i.e. Delahaye, 2000; Nadler, 1990; Nadler & Nadler, 1990; Pace, Smith, & Mills, 1991; Swanson & Holton III, 2001; Werner & DeSimone, 2006). Weinberger (1998) presented more than 10 definitions given by several scholars in this field (as cited in Swanson & Holton III, 2001). However, the definition provided by McLean & McLean (2000) seems to fit well with the present study (as cited in Swanson & Holton III, 2001, p. 4). They define HRD as any process or activity that, either initially or over the long term, has the potential to develop adults' work-based knowledge, expertise, productivity, and satisfaction, whether for personal or group/team gain, or for the benefit of an organization, community, nation, or, ultimately, the whole of humanity (McLean & McLean, 2000).

Swanson & Holton III (2001) argued that there are two major realms of focus within HRD. One is organization development (OD) and the other is personnel training and development (T&D). As implied by their names, OD primarily focuses at the organization level and connects with individuals, while T&D primarily focuses on individuals and connects with the organization. The realms of career development, quality, and performance improvement are important extensions of HRD theory and practice (p. 8).

T&D: Swanson & Holton III (2001, p. 208) define training as "the process of developing knowledge and expertise in people." Davis and Davis (1998), provide an explanation (as cited in Swanson & Holton III, 2001, p. 204) that

Training is the process through which skills are developed, information is provided, and attributes are nurtured, in order to help individuals who work in organizations to become more effective and efficient in their work. Training helps the organization to fulfill its purposes and goals, while contributing to the overall development of workers. Training is necessary to help workers

qualify for a job, do the job, or advance, but it is also essential for enhancing and transforming the job, so that the job actually adds value to the enterprise. Training facilitates learning, but learning is not only a formal activity designed and encouraged by specially prepared trainers to generate specific performance improvements. Learning is also a more universal activity, designed to increase capability and capacity and is facilitated formally and informally by many types of people at different levels of the organization. Training should always hold forth the promise of maximizing learning (p. 44).

Swanson & Holton III (2001) define development as “the planned growth and expansion of the knowledge and expertise of people beyond the present job requirements. This is accomplished through systematic training, learning experiences, work assignments, and assessment efforts (p. 208).” Armstrong (2010) further explains that

Development is concerned with ensuring that a person’s ability and potential grows through the provision of learning experiences or through self-directed (self-managed) learning. It is an unfolding process which enables people to progress from a present state of understanding and capability to a future state in which higher-level skills, knowledge and competencies are required (p. 217).

Competency: The concept of competency is essentially about performance (Armstrong, 2010) and it has been defined in several ways. Spencer & Spencer (1993) defined competencies as “the combination of underlying attributes, skills, traits, knowledge and motives of a person which have been causally related to superior performance in a job” (p. 9) while Mansfield (1999) defines competency as “an underlying characteristic of a person that results in effective or superior performance” (as cited in Armstrong, 2010 p. 170). Studies of the competency approach “emphasize that this concept usually includes underlying attributes, skills, traits, knowledge and attitudes that are required for successful performance in a job” (Özcelik & Ferman, 2006, p. 74). Competency can be developed through several approaches such as: Criterion samples, expert panel, and studying future jobs or single incumbent jobs (Spencer & Spencer, 1993); the process driven approach (Rothwell & Lindholm, 1999), the output-driven approach, the invention approach, the trends-driven approach, and the work responsibility-driven approach (as cited in Suthamanon, 2008). The components of competency to be studied in this study include knowledge, skills, and attributes. The approach of job analysis to be described in the research design and methodology section will be applied in this study.

CBS: One of the objectives of this study is to identify and develop specific industry competency based skills standards. Based on a review of skills standard development and testing of various organizations in selected countries i.e. Singapore (ILO, 2010); Malaysia (Leong, 2010); Philippines (Syjuco, 2010); Indonesia (Indonesia, 2010); Denmark, Japan, England, USA, (Wills, 1993; Wills & Border 1993), a framework for CBS has been identified. The development of CBD to be utilized in this study is based on a functional analysis technique (OSS&T, 2009). The process of functional analysis is comprised of the following steps: Functional mapping, check the functional mapping, identify unit of competence and element of competence, specify performance criteria, check the unit of competence and performance criteria, develop assessment guide, specify evidence required for assessment, piloting, and specify the competence standard to be used as competency based skills standard.

CBD: One of the objectives of this study is to identify and develop competency based skills training curriculum for developing employees. Based on a review of curriculum development of various organizations in selected countries i.e. Germany (Tippelt, 2003); Spain, Mexico, Colombia, Brazil (Vargas Zuniga, 2004), a framework for CBD curriculum development has been identified. The curriculum to be developed is divided into three levels: Course outlines, module, and content outlines. Course outlines are comprised of the following components: Course title, nominal duration, course description, trainee entry requirements, course structure (including unit of competency, module

title, learning outcome, and nominal hours), assessment method, methodologies, resources (including equipment, and material), and qualification of instructors or trainers. Modules are comprised of the following components: Course title, module title, nominal duration, module description, prerequisite, and training outcome. Course outlines are comprised of the following components: Course title, module title, content title, content, resources (including equipment, and material), condition, manual and references, assessment methods, and methodologies.

Related Research: Wasanon's (1997) research on HRD in a non-governmental organization (NGO) found that the concept of HRD applied in the NGO is that of a traditional one. It focused on the success of the organization rather than the success of individual employees. The objective of HRD is to improve the organizational performance. There is a lack of clarity and continuity of HRD policy. HRD activities consist of meetings, seminars, counseling and training. Efficiency and effectiveness are key indicators in evaluation. The results of evaluations are used for improving work performance.

Lekhalawan's (1999) study on Skills Standard and National Security found that skills standard is an important mechanism for skills development to enhance the development of national economics. The researcher suggests that a system should be established to relate the level of skills with pay. The minimum wage system should be changed to a system based on skill levels. Lekhalawan's (2001) study on the Application of Indicator of National Skills Standards for Training for Industry, recommended that the DSD should: Provide quality and efficiency training for skills development; have a policy requiring its skills development institutes and centers to apply the INSST; and adjust its roles to be a role model of skills development organization for private sector. Pewsaard's (2001) research on Factors Related to Attitudes toward Skill Standard Testing of People who Enter the Testing in Ubon Ratchathanee Skills Development Institute suggests that: Skills standard development and testing are not well known by people concerned. Training should be organized to disseminate information about skills standard development and testing; similar practices should apply in testing of all skills standards; test should be developed to correspond to the change of technology; and a system of pay corresponding to the level of skills should be developed and applied.

In Hoonniwat's (2002) study on Competency of HRD practitioners, the case study of the Institute of Vocational Teachers Development (IVTD) found that: (1) There are eight core competencies of HRD practitioners ranked according to the priority of essentials to the performance of duties as follows: (a) Teamwork; (b) leadership; (c) professional skills; (d) communication; (e) data searching; (f) functional management; (g) thinking; and (h) knowledge and understanding of organization. Suthamanon's (2008) study on Competency of HRM practitioners in the private sector organization in Thailand found that HRM practitioners in private sector organization in Thailand play four key roles: (1) System development and change agent in HRM; (2) strategic HRM; (3) counseling and advising in HRM; and (4) facilitating and servicing in HRM. There are 16 competencies required in order to play these four roles and that all four roles required two common competencies in placement and utilization of HR, and discipline, quality of work life and employee engagement. The researcher recommended that these competencies be used in developing curriculum for education and training and development of HR practitioners and applying in compensation management of the organizations. In addition, system and methods for assessment of HRM practitioners are proposed for accrediting of HR professional by certifying according to the roles of HR practitioners.

The concepts, theories and research reviewed related well to the present study. It covers a variety of HRM and HRD areas i.e. HRD practices, skills standard development and testing, pay related to skill levels, competency development, competency assessment and certification, competency based training curriculum development and etc. The findings and recommendations of these studies are useful to the design of the present study.

Research Design and Methodology

This is a qualitative research guided by a participatory action research paradigm (Heron, 1996; Heron & Reason, 1997) with competency development techniques and case study strategies (Stake, 1995; Yin, 1994, 2003a, 2003b). The case selection for study was made by purposive and criterion samplings. The structure of logistic systems is comprised of five main logistic industries and four supporting industries. The five main industries are: (1) Sea transport; (2) land transport (3) air transport; (4) international freight forwarding; (5) custom brokers. The supporting industries are: (1) Warehouse and distribution centers; (2) insurance; (3) express delivery; and (4) internet service providers-ISP. The criterion for selection of the case include: (1) It must be a company in the logistics industry as specified; (2) employing not less than 100 employees; (3) located at a convenient place for inviting other company representatives to participate in a triangulation hearing session of the result of the study; and (4) willing to participate in the project. Based on these criteria, a dock station management company was selected as a sample company for this project. This company is classified as part of sea transport, international freight forwarding, and warehouse. The key informants of this research are employees in this company and purposive sampling technique was applied in sample selection. Through competency development technique, four types of data collection methods were employed: (1) Focus group interview (Merton, Fiske, & Kendall, 1990 orig. 1956; Stewart, Shamdasani, & Rook, 2007); (2) in-depth interview (Berg, 1998; Joungtrakul, 2010b; Maykut & Morehouse, 1994; Patton, 1990); (3); observation (Marshall & Rossman, 1999; Patton, 1990); and (4) document review (Hakim, 2000; Hitchcock & Hughes, 1995; Hodder, 2000). Content analysis (Berg, 1998; Weber, 1990) was applied in data analysis which was made concurrent with the data collection.

This project is sponsored by the DSD so a steering committee was established by the DSD to supervise the work of the research team. The process of conducting this research is divided into five phases.

The first phase is the preparation phase. In this phase the research team conducts a review of literature related to the concept of competency based skills development, preparing guidelines and format for analyzing of competency, preparing documents and forms needed for analyzing competency, and conducting meetings with responsible officials of the DSD. Selection of the company to participate in the project was made and the responsible officials coordinated with the sample company for preparation for the beginning of the research project.

The second step involves the study and identification of competency required by the company. It begins with conducting training on competency for management and employees of the sampled company by the research team. This is essential as the design of this research is participatory action research and management and employees of this company will participate in the conduct of research from the beginning until the end of the project. They will co-create knowledge in this research. Having completed all the training required a team was established in each of the four lines of functions of the company i.e. Booth Gate (BG); CR Controller (CRC); CD Controller (CDC); and DC Documentation (DCD). The research team then conducted focus group interviews with each team to review the missions, functions, duties and responsibilities and details of operation for each function. Following these reviews, job analysis was conducted and the required competencies were identified which include managerial competency and functional competency. Having identified the required competencies then the competency model was developed specifying proficiency level/proficiency behavior. The expected competency level was established and competency profile and job competency mapping were developed. All competency models were compiled and a competency dictionary was developed. To triangulate the accuracy of the data obtained through the focus groups, observations of the actual operations were conducted. In-depth interviews using an interview guide were conducted with supervisors and practical experts in each operation and document reviews were also made.

The third phase involves the accuracy checking of competency. A meeting was conducted with responsible officials of the DSD to prepare for conducting a hearing workshop of the competency

developed. Experts and representatives of other companies in the logistics industry were invited to participate in the hearing workshop. The research team presented the results of the study to the workshop for comments and suggestions. The research team then made all necessary revisions of competencies based on comments and suggestions derived from the workshop.

The fourth step involves the development of competency assessment tools and conduct of competency assessment. A competency assessment form was developed to use for assessing employees competency in the company in order to find competency gaps. Competency assessment was then conducted with employees in the company and competency gaps were identified. A gap analysis was conducted for the following three purposes: (1) To fill or reduce the gaps by identifying personnel development methods; (2) to develop industry specific CBS according to the format of the DSD; and (3) to develop competency based skills training curriculum to upgrade employees' competency where training is identified to be the major method of development.

The final phase of the project involves developing a handbook for developing a competency based skills development system and training of responsible officials of the DSD. A competency based skills development system manual was prepared and separated into three parts. The first part describes the process and technique of competency analysis. The second part explains the process and technique for developing the specific industry competency based skills standards. The third part describes the procedures for developing competency based skills training curriculum. Training was then conducted based on the manual for responsible officials of the DSD. A draft of the final report of the study was prepared and presented to the steering committee for review and approval. The research team made a presentation of the draft final report to the steering committee to hear their comments and suggestions. The research team then made final revisions based on the comments and suggestions of the steering committee. The final report of the study was then prepared and submitted to the DSD.

Findings

Presentation of the findings of this study will be divided into five parts according to the objectives of the study.

Objective One: To identify competency required for employees in the sampled company. In order to identify the required competency of employees of the company five tasks were accomplished: (1) Review of organization structure and its missions; (2) conduct job analysis; (3) conduct competency analysis; (4) establish competency model and competency profile; and (5) establish job competency mapping. The review of organizational structure and missions found that the organizational structure of the company was comprised of four major sections: BG; CRC; CDC; and DCD. The results of the job analysis revealed that there were four jobs, 11 tasks and 42 activities. In total there were 31 competencies, 31 competency models and 20 competency profiles. Four competency mappings were established for each BG, CRC, CDC, and DCC sections.

Objective Two: To identify the actual competency possessed by employees in the sampled company. The result of competency gap analysis shows that: (1) BG: (a) BG Clerks, out of 18 competencies required for this position, there are only two competencies that employees are able to perform according to the level of competency. There are competency gaps in 16 competencies required for this position such as: Using English vocabulary in dock business, understanding of specific conditions of each ship line, using computer in work operation, using SparcsN4 program, and using lotus note program for sending emails. (b) Junior CDD, it was found that employees are able to perform according to most of the competency requirements. However, major competency gaps occurred in certain competencies i.e. 100% of employees holding this position have competency gaps in the competencies of using English vocabulary in dock business, and understanding of specific conditions of each ship line. There are competency gaps in the competency of inventory of washed containers, using the lotus note program to send emails, using a computer in work operation, and in using SparcsN4. (2) CRC: (a) CRC Clerk, it was found that employees who occupied this position

were able to perform according to most of the competency requirements. However, 100% of employees holding this position have competency gaps in four competencies i.e. issuing of invoice for washing and repairing containers, using of English language vocabulary in dock business, understanding of specific conditions of each ship line, and utilization of a computer in work operations, using lotus note program to send emails, and using SparcsN4. For the remaining nine competencies, employees are able to perform according to the standards required. (b) Junior CRC, employees holding this position can perform according to the levels of competency requirements in only two competencies which are using SparcsN4 and human relations. There are competency gaps in the rest of 16 competencies. (c) Senior CRC, employees can perform according to the competency requirements in 16 competencies. However, 100% of employees have competency gaps in six competencies i.e. container moving coordination, use of English language vocabulary in dock business, use of lotus note program to send email, attention to details and observation habits, using a computer in work operations and decision making. (3) CDC: (a) CDC Clerk, employees can perform according to the levels of competency required in only three competencies. In other 16 competencies there are competency gaps which include: (b) Junior CDC, there are only three competencies that employees have competency gaps i.e. use of English language vocabulary in dock business, using lotus note program for sending email, and using a computer in work operations. In the remaining 16 competencies, employees can perform according to the competency requirements. (c) Senior CDC, employees can perform according to the levels of competency requirements in only three competencies. In the other 13 competencies 100% of employees have competency gaps such as using SparcsN4 program, use of English language vocabulary in dock business, understanding specific conditions of each ship line, and using lotus note program for sending email. (4) DCD: (a) DCD Clerk, there are totally 20 competencies in this position and employees can perform according to the levels of competency requirements in only one competency which is the competency of classification of container according to its condition. In the rest of the 19 competencies, employees have competency gaps especially 100% of employees have competency gap in the competency of use of English language vocabulary in dock business, and notifying of container delivery point. (b) Junior DCD, there are in total 20 competencies in this position and employees can perform according to the levels of competency requirements in six competencies. A total of 100% of employees have competency gaps in 14 competencies such as stock inventory, container moving coordination, use of English language vocabulary in dock business, understanding of specific conditions of each ship line, and using lotus note program for sending email and etc. (c) Senior DCD, employees can perform according to the levels of competency requirements in most of the competencies. A total of 100% of employees have competency gaps in five competencies such as container moving coordination, use of English language vocabulary in dock business, understanding of specific conditions of each ship line, and using a computer in work operations.

Objective Three: To identify methods of development to upgrade employees' competency to meet the required competency levels. Based on the competency gaps identified in objective two, methods of development for each section are identified. For BG the following development methods are proposed: OJT, coaching and mentoring, case study, self-study, lecture, simulation, and demonstration. CRC: OJT, coaching and mentoring, case study, self-study, lecture, simulation, and demonstration. CDC: OJT, coaching and mentoring, case study, self-study, observing actual operations, simulation, and demonstration. CDD: OJT, coaching and mentoring, case study, self-study, lecture, simulation, and demonstration.

Objective Four: To identify and develop specific industry competency based skills standards. Based on the results of the study four specific industry competency based skills standards were developed. There is one each for: (1) BG; (2) CRC; (3) CD; and (4) DCD.

Objective Five: To identify and develop competency based skills training curriculums for developing employees. Based on the results of the study one competency based skills training curriculum was developed. The curriculum is Container Depot Operation. The curriculum consists of

seven modules containing 32 subjects in various modules. The structure of the curriculum contains: (1) Course title; (2) Nominal duration; (3) Course description; (4) Trainee entry requirements; (5) Course structure which include: (a) Unit of competency; (b) module title; (c) learning outcome; and (d) nominal hours; (6) Assessment method; (7) Methodologies; (8) Resources which include: (a) Equipment; and (b) material; and (9) Qualification of instructor or trainers. The structure of the module consists of: (1) Course title; (2) Module title; (3) Nominal duration; (4) Module description; (5) Prerequisite; and (5) Training outcome. The content outline consists of: (1) Course title; (2) Module title; (3) Content title; (4) Content; (5) Resources which include: (a) Equipment; and (b) Material; (6) Condition; (7) Manual and references; (8) Assessment methods; and (9) Methodologies.

Discussions

The findings of this study indicate that the majority of employees of the company are not able to perform according to the competency levels required. There are five major areas that needed immediate attention by management. The first area is the use of English language especially the technical terms in the logistics business. The second major area is the use of computers in the operation of work. The third area is the use of specific software programs necessary in the performance of duties such as using lotus note program to send emails, and using SparcsN4. The fourth area is the understanding of specific conditions of each ship line. The fifth area is the knowledge and understanding of the company work operation such as moving of containers, notifying of delivery points and etc. Based on the competency gaps identified, the company can develop its employees effectively. Most of the development needs identified by competency gaps can be accomplished through training.

The use of English language is the most critical weak point. At present, in handling their day to day work, employees have to communicate with all key stakeholders of the company in English both verbally and in writing. This is an international freight forwarding company dealing with ship lines and customers all over the world. They have to use the forms, emails, telephone, and personal contact person to person. Lack of competency in English language not only causes inefficiency in work performance but also could cause acute damage to business and the company. It could also cause unsafe acts and conditions that could lead to bodily harm and loss. Immediate action should be taken to develop employees' competency in this area. Computer and software utilization are also critical issues. In today's world of work one cannot survive without computer skills. Immediate action needs to be taken. Understanding of specific conditions of each ship line and work operations also needs immediate action. To accelerate the needed competency development, a multi development approach should apply. On-the-job learning should be used in all areas supported by classroom training and other types of development.

Developing competency systems is a very time consuming process. It takes a lot of time, effort, and resources. It requires attention to details in all the steps in the process. Implementing and maintaining the system is even more difficult as it is a continuing process in HRM systems. It is a basis for all human resource functions beginning from human resource planning to the termination of employment. Implementation of competency in HRM is still in the beginning period. According to Armstrong (2010) the application of competency systems in HRM is 85% for selection; 82% in learning and development; 76% in performance management; and 55% in recruitment. According to Armstrong (2010) "only 30 per cent of organizations linked competencies to reward" (p. 172). More applications and research are needed.

From the results of the hearing workshop it was found that most of the companies participated in the workshop lack of knowledge in the concept of competency. This is also true in the areas of competency based skills standards and competency based skills development. Most activities in HRM practices are in traditional forms. Competency has not been integrated in HRM functions.

Employee development mostly relies on training and has been conducted in the traditional way. Other methods of development are not practiced. At the same time training is done just to follow the trends in industry and business society. In some areas it is a fashion-like training. The five steps process of ADDIE as presented by Swanson & Holton III (2001) is not being fully utilized. Most of the training conducted concentrates on the implementation part of the ADDIE model. The most omitted parts are the first one which is training needs analysis and the last part which is evaluation (Joungtrakul, 2010a, 2010c). More efforts should be made for creating more knowledge in the areas of CBS and CBD systems.

From the results of the study it was found that most of the competencies in which employees have competency gaps are supporting competencies. Employees can perform according to the levels of competency required in most of the direct job competencies. Supporting competencies such as paying attention to details and responsibility were found to be most lacking by employees. Development in these areas is also essential. Learning and development alone will not be able to create the realization of the need of upgrading individual employee's competency. Rewards should be linked to the competency management system in the company (Armstrong, 2010).

One important finding of this study is that there is a lack of individual employees who are able to perform the function of transferring knowledge. Knowledge sharing is a key success of knowledge management. As mentioned by Armstrong (2010, p. 92), "knowledge management is about the management and motivation of knowledge workers who create knowledge and will be the key players in sharing it." Employees learning and development in this area should also be taken into consideration.

Conclusions and Recommendations

CBD is a rather new concept to Thai business and industry. Although it is practiced in some companies, the majority of people in HRM and stakeholders still lack knowledge and understanding of it. Based on the findings and discussions of this study the following recommendations are made.

Firstly, the company should implement the CBD developed through this study. Various types of development methods as recommended should be applied. The CBS and CBD should be applied and operated. An evaluation study should be made after a specific period of implementation.

Secondly, companies in the same type of operation in the logistics industry should use the results of this study as a basis for development of CBD in their companies. Similar activities as recommended above should also be implemented.

Thirdly, the DSD should use the results of this study as a basis for expansion of its activities in CBD to other sectors of logistic and other industries. The results of this study can be used as a basis for further development of the DSD policy in CBD.

Fourthly, HR Society should expand its education activities to concentrate more on CHRM. This could be done through meetings, conferences, training and other knowledge sharing sessions. A network on CHRM in logistics and other industries would help to enhance the progress in this area.

Fifthly, Academic society should give more attention to CHRM in both teaching and research. A Master thesis or Doctoral dissertation in this area should be encouraged by education institutions. Various types of supports and incentives should be provided to both faculties and students who are conducting research in this area.

Implication of the Study

In terms of theoretical implication, the results of this study add to the present CHRM literature. It could be used as a basis for further study in this field.

For practical implications, the company can implement its CBD to enhance the success of the company. The DSD can use the results of this study to be a basis for expanding its activities in this area. It also can be a basis for further development of the DSD's CBD policy for a wider implementation.

Future Research Agenda

There are nine sectors in the logistics industry and this study was conducted in only one company in one sector of the business. A similar type of study should be made in other sectors to gain more knowledge on competency in a wider perspective in this industry.

A follow-up and evaluation study of this project should be made and corrective actions identified in the results of the study should be made.

This study employed qualitative method; a quantitative study should be made using the findings of this study as a basis for testing of knowledge with wider populations in this industry. This will enable the possibilities of generalizing the results of the study to other applicable sectors.

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