Factors Influencing the Development of Skilled Labors in Thai Orchid Industry

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Abstract

A study of factors influencing the development of skilled labors in Thai orchid industry is to study how to develop skilled workers' capabilities and present a model to be a better skilled workers. This research studied the human development of Thai orchid industry from secondary information and in-depth interviews with professional related to the industry including the questionnaires. The findings are: the desirable qualification of skilled labor in Thai orchid industry are as follows: 1) maturity aspect such as working like its own business, interested to do the job, disciplined, punctual, time conscious, 2) responsibility aspect such as cooperating with supervisor at work, entrusted to take charge on behalf of employees; 3) work attitude aspect such as having clear daily target to be achieved and having passion for own work. The patterns and method of personnel development are three-folded as follows: 1) self-learning aspect such as keeping updated of information from internet, self-learning on marketing from various sources; 2) cluster knowledge sharing and use of technologies pattern such as meeting and sharing information and knowledge to others use of technology; 3) coaching pattern such as entrepreneur supervise operation and giving coaching at work.

Keywords: Human development, skilled labor, Thai orchid industry

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ปัจจัยที่มีอิทธิพลต่อการพัฒนาแรงงานในอุตสาหกรรมกล้วยไม้ไทย

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บทคัดย่อ

การศึกษาเรื่อง ปัจจัยที่มีอิทธิพลต่อการพัฒนาแรงงานในอุตสาหกรรมกล้วยไม้ไทย มีวัตถุประสงค์เพื่อการศึกษาการพัฒนาความสามารถของแรงงานและนำเสนอรูปแบบของการพัฒนาแรงงาน โดยการศึกษาครั้งนี้เป็นการศึกษาจากเอกสาร ข้อมูล หนังสือ ตำรา รวมถึงการสัมภาษณ์เจาะลึก และการแจกแบบสอบถาม ผลการศึกษาของการพัฒนาแรงงานในอุตสาหกรรมกล้วยไม้ไทย มีดังนี้ 1) ปัจจัยด้านวุฒิภาวะ ประกอบด้วย การมีระเบียบวินัย ตรงต่อเวลา ชอบงานธุรกิจ เรียนรู้งานได้ง่าย ซื่อสัตย์ ขยัน ประหยัด 2) ปัจจัยด้านความรับผิดชอบ ประกอบด้วย สามารถทำงานร่วมกับหัวหน้างาน 3) ทัศนคติในการทำงาน ประกอบด้วย มีใจรักในงาน สู้งาน พร้อมที่จะเรียนรู้ และตั้งใจทำงาน รูปแบบและวิธีการพัฒนาตนเองสำหรับแรงงานมี 3 รูปแบบคือ 1) การเรียนรู้ด้วยตนเอง ประกอบด้วย ติดตามข้อมูลจากอินเทอร์เน็ต เรียนรู้ด้านการตลาดจากหลายแหล่ง 2) การแลกเปลี่ยนเรียนรู้ ใช้เทคโนโลยี ประกอบด้วย เครือข่ายกล้วยไม้มีการพบปะแลกเปลี่ยนเรียนรู้ใช้เทคโนโลยีในการแลกเปลี่ยนเรียนรู้ 3) การสอนแนะนำงาน ประกอบด้วย ผู้ประกอบการเป็นผู้ควบคุมงาน สอนงาน และมอบหมายงานรับผิดชอบต่อเนื่อง

คำสำคัญ: การพัฒนาทรัพยากรมนุษย์ แรงงานที่มีทักษะ อุตสาหกรรมกล้วยไม้

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Introduction

Thailand has exported orchids since 1965. It is one of the world's largest orchid flower exporter, followed by Taiwan. Export of cut orchid is one of Thailand's major income earners bringing in more than 77 millions US dollars a year. Thai orchids are internationally accepted for their colors, shape and long vase life (National Orchid Commission, 2011). Thailand has high potential for producing and exporting orchids based on its long experience in this industry and trade (Office of the Agricultural Advisor, 2011).

However, the orchid farm owners have faced many problems such as the problems of production, processing, and export problems. For production problems: lack of proper use of pesticides, lack of modern technological development so as to improve and maintain quality of products, extend product life and increase productivity; lack of continuation in developing and generating new species to the market; production volume failing to meet market demand because the Dendrobuim flowers in rainy season, resulting in oversupply and price drop, while in dry season the products are in short supply and unable to meet foreign consumers' demand; higher production costs due to sharp increase in prices of such production factors as fertilizer and pesticides while prices of products produced remain constant or drop, and sometimes lower than standard quality of chemicals; shortage of skilled labor having dependable knowledge to take proper care of orchid plants; and improper environment in some production areas inflicted by floods, as well as air and water pollution caused by factories nearby resulting of farms located near communities. For processing problem: lack of development of innovation and processing technology to add value to the study and analysis of problems relating to the existing markets; inadequate air freight during festive season when in high export cost; and use of chemicals on orchids before export which results in deteriorating quality of orchids when delivered to consumers. For export problems: trade barrier measures imposed by trade counter part countries; and complaints of countries of destination about flower quality.

Considering the problems faced by the Thai orchid industry as mentioned above, it can be seen that the problems relating to production, processing, and export are important. Thus, the skilled labor development is crucial to enhancing competitiveness of Thai orchid industry. The researcher is therefore interested in studying how to develop skilled workers' capabilities and present a model to be a better skilled workers.

Study Method

The quantitative method was under taken in four stages. The first stage of the study incorporated the research design of quantitative method. The aim of this stage was to identify research population, sample, unit of analysis and data collection strategy. The second stage of

the study incorporated the development of the questionnaires. The questionnaire was developed to ask entrepreneurs and the skilled labor. The findings from the questionnaire allowed the researcher to confirm appropriate dependent and independent variables to be used in stage three of the study which involved the distribution of questionnaires to skilled labor. The forth stage of the study incorporate the calculating the appropriate statistical values, arithmetic, mean, standard deviation, and by conducting percentage and factor analysis. In addition, the questionnaires have been tested with 30 respondents having similar characteristics to the sample entrepreter group. The objective is to test the reliability of the questionnaires and the Cronbach's α–requiring a reliability of 0.80 or higher.

Literature Review

From the study, the researcher would like to present the three concepts concerning human resource development as follows: First concept: Nadler (1980) defined human resource development as a series of organized learning activities, conducted within a specified period of time to increase the possibility of job performance and growth. The three common activities are: Training is any activity that creates learning. This training activity focuses on the present job in order to improve knowledge, capabilities and skills of staff on the job. Those who have passed training will be able to adopt and use the knowledge and gained right away. Education is any activity that directly develops human resources in order to increase staff knowledge, skill, attitudes and competencies not specific to any particular job. Education focuses on a future job so that the employees are ready to work in response to future requirements of their organizations. Development is a procedure for increasing efficiency of an organization. Development is concerned with providing learning experience to employees, not focusing on a job, so that they will be ready to move in new directions that organizational change may require. This approach is a preparation for the employees to move with the organization in the future in line with the rapidly changing technology and environment (McLagan, 1989).

Second concept: Gilley and Eggland (1989) defined human resource development as the systematic setting and design of activity for the improvement of employee knowledge, skills, capabilities and behaviors by focusing on the following three elements: 1) individual development, 2) career development, and 3) organization development. Under this concept, the key roles of human resource development will involve: 1) administration, 2) career counselor, 3) instructor/facilitator, 4) material development, 5) organizational change agent, and 6) researcher.

Third concept: Woolner (1995) defined human resource development as development into a learning organization which is an integration of learning and functioning of an organization. The following three components can be integrated in a continued and systematic way:

1) individual level, 2) work group or team level and 3) the system level. Learning can be classified into three types: 1) in the past, learning process is learning from experience, 2) at present, learning process is for adjusting to the current situations, and 3) in the future, learning process is for transforming the organization in the face of changing environment (Malakul Na Ayutthaya, 2005).

This section shows the important to develop human resource through training, education, and development. These three areas involved learning activities which assist employees to gain and increase ability to work more effectively. In addition, learning can create continuous learning, promote inquiry, encourage collaboration and team learning, establish systems to capture and share learning, connect the organization to its environment, and provide strategic leadership for learning. This way will improve skilled labor to work effectively.

Findings

Findings of the study consist of two parts: 1) desirable qualifications and traits of skilled labor and 2) patterns and methods of skilled labor development in Thai orchid industry. Desirable qualifications and traits of skilled labor.

From the 23 desirable qualifications and traits of skilled labor variables, the sample groups strongly agreed to 20 variables. These were 1) disciplined, punctual, time conscious; 2) honest, diligent, thrift; 3) having clear daily target to be achieved; 4) having passion for own work; 5) highly responsible; 6) cooperating with supervisors at work; 7) assiduously attending to details throughout work process; 8) cooperating with team members at work; 9) hard working, tolerant, dedicated, diligent; 10) entrust to take charge on behalf of employer; 11) observant, aiming to rectify and improve; 12) having basic knowledge on orchid; 13) genuinely interested to do, not just to try a job; 14) eager to learn all the time; 15) prepared for changes; 16) actively broadening, deepening and sharing work experience; 17) quick learner of work skill; 18) working like in own business; 19 able to coach, guide and supervise; and 20) creative and far sighted (mean value = 2.53, 2.53, 2.51, 2.48, 2.48, 2.44, 2.41, 2.38, 2.37, 2.37, 2.35, 2.35, 2.34, 2.33, 2.33, 2.32, 2.32, 2.30, 2.30 and 2.28 respectively).

The sample groups agreed to the other 3 variables: 1) self-confident; 2) ready to embrace technology for efficiency enhancement; and 3) knowledgeable about orchid market (mean value = 2.19, 2.14 and 1.97 respectively). (Table 1)

Table 1. Arithmetic Mean and Standard Deviation, Desirable Qualifications and Traits of Skilled Labor

Desirable Qualifications and Traits	Arithmetic Mean	Standard Deviation
1. disciplined, punctual, time conscious	2.53	0.58
2. honest, diligent, thrifty	2.53	0.58
3. having clear daily target to be achieved	2.51	0.52
4. having passion for own work	2.48	0.57
5. highly responsible	2.48	0.53
6. cooperating with supervisors at work	2.44	0.49
7. assiduously attending to details throughout work process	2.41	0.64
8. cooperating with team members at work	2.38	0.49
9. hard working, tolerant, dedicated, diligent	2.37	0.55
10. entrusted to take charge on behalf of employer	2.37	0.48
11. observant, aiming to rectify and improve	2.35	0.66
12. having basic knowledge about orchids	2.35	0.74
13. genuinely interested to do a job	2.34	0.68
14. eager to learn all the time	2.33	0.64
15. prepare for changes	2.33	0.64
16. actively broadening, deepening and sharing work experience	2.32	0.64
17. quick learner of work skill	2.32	0.55
18. working like in own business	2.30	0.66
19. able to coach, guide, and supervise	2.30	0.59
20. creative and far sighted	2.28	0.61
21. self-confident	2.19	0.63
22. ready to embrace technology for efficiency enhancement	2.14	0.74
23. knowledgeable about orchid market	1.97	0.76

The study analyzed the variables of desirable qualifications and traits to which the sample groups strongly agreed with an arithmetic mean of 2.28-2.53 by the factor analysis approach to get a small set of variables from a large set of variables (most of which are correlated to each other). The Kaiser-Olkin measure of sampling adequacy and appropriateness of factor analysis came out at 0.85, which can be interpreted as good.

Table 2 shows 20 variables, with three factors that can explain the variance (having Eigenvalue higher than 1). These factors explained 76.24 percent of the total variance observed.

Factor 1 Maturity aspect: with the sum of Eigenvalues being equal to 12.15, the factor best explained 60.74% of the total variance, being composed of 10 variables: 1) assiduously attending to details throughout work process; 2) working like in own business; 3) having basic knowledge about orchids; 4) genuinely interested to do a job; 5) actively broadening deepening and sharing work experience; 6) disciplined, punctual, time conscious; 7) observant, aiming to rectify and improve; 8) able to coach, guide, and supervise; 9) quick learner of work skill; and 10) creative and far sighted.

Factor 2 Responsibility aspect: with the sum of Eigenvalues being equal to 1.69, the factor explained 8.46 percent of the total variance. Cumulative percentage showed the amount of variance explained by two factors at 69.21 percent, comprising six variables: 1) cooperating with supervisors at work: 2) cooperating with team members at work; 3) entrusted to take charge on behalf of employer; 4) hardworking, tolerant, dedicated, diligent; 5) highly responsible; and 6) eager to learn all the time.

Factor 3 Work attitude aspect: with the sum of Eigenvalues being equal to 1.41, the factor explained 7.03 percent of the total variance. Cumulative percentage showed the amount of variance explained by three factors at 76.24 percent, comprising two variables: 1) having clear daily target to be achieved; and 2) having passion for own work.

Table 2. Factor Analysis: Desirable Qualifications and Traits of Skilled Labor

Factor	Factor Loading	Eigenvalues	% of Variance Explained	Cumu-lative % Explained
1. maturity aspect		12.15	60.74	60.74
1.1 assiduously attending to details throughout work process	0.84			
1.2 working like in own business	0.82			
1.3 having basic knowledge about orchids	0.80			
1.4 genuinely interested to do a job	0.79			
1.5 actively broadening, deepening and sharing work experience	0.77			
1.6 disciplined, punctual, time conscious	0.68			
1.7 observant, aiming to rectify and improve	0.68			
1.8 able to coach, guide and supervise	0.66			
1.9 quick leaner of work skill	0.66			
1.10 creative and far sighted	0.64			
2. responsibility aspect		1.69	8.464	69.21
2.1 cooperating with supervisors at work	0.88			
2.2 cooperating with team members at work	0.84			
2.3 entrusted to take charge on behalf of employer	0.74			
2.4 hard working, tolerant, dedicated, diligent	0.69			
2.5 highly responsible	0.66			
2.6 eager to learn all the time	0.64			
3. work attitude aspect		1.41	7.03	76.24
3.1 having clear daily to target to be achieved	0.83			
3.2 having passion for own work	0.76			

N = 120 Extraction Method: Principal Component Analysis

Patterns and Methods of Skilled Labor Development

From the 15 patterns and methods of skilled labor development variables, the sample groups strongly agreed to the following six variables: 1) entrepreneurs give coaching at work; 2) orchid cluster members meet to share information and knowledge; 3) entrepreneurs supervise operation; 4) learning from on going on-the-job training; 5) entrepreneurs give assignments consistently; and 6) use of technologies in sharing knowledge (mean value = 2.48, 2,45, 2.39, 2.38, 2.34 and 2.29 respectively).

The sample groups agreed to the following nine variables: 1) formal training available before start of work; 2) provision of knowledge by government agencies: 3) training provided by cluster at orchid farms; 4) learning on marketing from information recommended by entrepreneurs; 5) self-learning on marketing from various sources; 6) provision of knowledge by organizations/associations/clusters; 7) having labor participate in forums organized by various organizations; 8) keeping up dated of news from various organizations; and 9) keeping up dated of information from internet (mean value = 2.23, 2.20, 2.18, 2.17, 2.16, 2.16, 2.11, 2.01, respectively) (Table 3)

Table 3 Arithmetic Mean and Standard Deviation of the Patterns and Methods of Skilled Labor

Patterns and Methods of Skilled Labor Development	Arithmetic Mean	Standard Deviation
1. entrepreneurs give coaching at work	2.48	0.55
2. orchid cluster members meet to share information and knowledge	2.45	0.65
3. entrepreneurs supervise operation	2.39	0.57
4. learning from on going on-the-job training	2.38	0.54
5. entrepreneurs give assignments consistently	2.34	0.57
6. use of technologies in sharing knowledge	2.29	0.60
7. formal training available before start of work	2.23	0.63
8. provision of knowledge by government agencies	2.20	0.75
9. training provided by cluster at orchid farms	2.18	0.68
10. learning on marketing from information recommended by entrepreneurs	2.18	0.67
11. self-learning on marketing from various sources	2.17	0.63
12. provision of knowledge by organizations/ associations/ clusters	2.16	0.62
13. having labor participate in forums organized by various organization	2.16	0.62
14. keeping up dated of news from various organizations	2.11	0.58
15. keeping up dated of information from internet	2.01	0.69

N = 120

The study analyzed the variables of desirable qualifications and traits of skilled labor to which the sample groups agreed to strongly agreed with an arithmetic means of 2.01- 2.48 by the factor analysis to get a small set of variables from a large set of variables (most of which are correlated to each other). The Kaiser-Meyer-Olkin measure of sampling adequacy and appropriateness of factor analysis came out at 0.79, which can be interpreted as moderate to relatively good.

Table 4 shows 15 variables, with three factors that can explain the variance (having Eigenvalue higher than 1). These factors explained 74.19 percent of the total variance observed.

Factor 1 Self-learning aspect: with the sum of Eigenvalues being equal to 8.29, the factor best explained 55.32 percent of the total variance by six variables: 1) keeping up dated of information from internet; 2) self-learning on marketing from various sources; 3) formal training available before start of work; 4) having labor participate in forums organized by various organizations; 5) keeping up dated of news from various organizations; and 6) learning on marketing from information recommended by entrepreneurs.

Factor 2 Exchange of knowledge through networks and technologies aspect: with the sum of Eigenvalues being equal to 1.56, the factor explained 65.74 percent of the total variance by five variables: 1) orchid cluster members meet to share information and knowledge; 2) use of technologies in sharing knowledge; 3) learning from ongoing on-the-job training; 4) provision of knowledge by government agencies; 5) provision of knowledge by organizations/associations/ clusters.

Factor 3 Guidance and coaching aspect: with the sum of Eigenvalues being equal to 1.23, the factor explained 8.45 percent of the total variance. Cumulative percentage showed the amount of variance explained by 2 factors at 74.19 percent being composed of three variables: 1) entrepreneurs supervise operation; 2) entrepreneurs give coaching at work; and 3) entrepreneurs give assignments consistently.

Table 4. Factor Analysis: Patterns and Methods of Skilled Labor Development

Factor	Factor Loading	Eigen values	% of Variance Explained	Cumulative % Explained
1. self-learning aspect		8.29	55.32	55.32
1.1 keeping up dated of information from internet	0.84			
1.2 self-learning on marketing from various sources	0.79			
1.3 formal training available before start of work	0.74			
1.4 having labor participate in forums organized by various organizations	0.70			
1.5 keeping up dated of news from various organizations	0.69			
1.6 learning on marketing from information recommended by entrepreneurs	0.66			
2. exchange of knowledge through networks and technologies aspect		1.56	10.42	65.74
2.1 orchid cluster members meet to share information and knowledge	0.86			
2.2 use of technologies in sharing knowledge	0.72			
3. guidance and coaching aspect		1.27	8.45	74.19
3.1 entrepreneurs supervise operation	0.87			
3.2 entrepreneurs give coaching at work	0.74			
3.3 entrepreneurs give assignment consistently	0.74			

N= 120 Extraction method: Principal component analysis
Rotation method: varimax with Kaiser Normalization

Conclusion

In this part, the survey study found that the sample group identified top 20 desirable qualifications and traits of skilled labor with the arithmetic mean of 2.28-2.53 and the variables of desirable qualifications and traits of skilled labor weighted high were analyzed using the factor analysis method. It has been found that there are three factors that can explain 76.24 percent of total variance. Therefore, desirable qualifications of skilled labor in Thai orchid industry are as follows: 1) Maturity aspect: assiduously attending to details throughout work process, working like in own business, having basic knowledge about orchids, genuinely interested to do a job, actively broadening, deepening and sharing with experience, disciplined, punctual, time conscious, observant, aiming to rectify and improve, able to coach, guide, and supervise, quick learner of work skill, and creative and far sighted. 2) Responsibility aspect: cooperating with supervisors at work, cooperating with team members at work, entrusted to take charge on behalf of employer, hard working, tolerant, dedicated, diligent, highly responsible, and eager to learn all the time. 3) Work attitude aspect: having clear daily target to be achieved and having passion for own work.

The survey study on patterns and methods of skilled labor development found that the sample group agreed and strongly agreed to the following 15 approaches with the arithmetic mean of 2.01-2.48. Then, the variables of the patterns and methods of skilled labor development weighted high and highest by the sample group were analyzed using the factor analysis method. It has been found that there are three factors that can explain 74.19 percent of total variance. Therefore, the patterns and methods of personnel development are three-folded as follows: 1) self-learning pattern incorporating six methods as follows: keeping updated of information from internet, self-learning on marketing from various sources, formal training available before start of work, having labor participate in forums organized by various organizations, keeping updated of news from various organizations, and learning on marketing from information recommended by entrepreneurs. 2) cluster knowledge sharing and use of technologies pattern as follows: orchid cluster members meet to share information and knowledge, use of technologies in sharing knowledge, provision of knowledge by government agencies, and provision of knowledge by organizations/associations/clusters. 3) coaching patterns composed of three methods as follows: entrepreneur supervise operation, entrepreneurs give coaching at work and entrepreneurs give assignments consistently.

Discussion

In this section, the researcher would like to discuss the development of skill labor's capability in order to work more effectively and have more competency. In addition, it needs to explain more on the patterns and methods of skilled labor in order to prepare the skilled labor to enter the Thai orchid industry with highly skill. In addition, research finding will be discussed

since the researcher found three factors to develop the skill labors and three patterns for preparation. First, the researcher will discuss in terms of three factors that can explain the variance in the desirable qualification and traits of skilled labor.

Factor 1 Maturity aspect reflected the skilled labor s to demonstrate the importance placed on ability to take care of the orchid farm with the depth knowledge. This factor lead to the skill labor who are highly experience, discipline and value of multiple aspects such as punctual, love orchid, creativity and farsighted. With this maturity aspect, the skilled labor can help to create customer satisfaction so that the customer would buy more and have loyalty to the products. Factor 2 responsibility aspect reflect the skill labor's ability to the duty to take care of the orchid farms which involve personal accountability to work with other members in the farms and outside the farm such as supplier. They have ability to act and cooperate. Factor 3 work attitude aspect is about the objective towards working successfully and have passion to work. For the first meaning, the skilled labor must commit to the orchid farm they work for. A highly committed skilled labor is one who accepts and believe in the farm's value. They are willing to put effort to meet the goal of the orchid farms and have a strong desire to work in the farm. For the second meaning, the skilled labor has passion to work. It refers to that person enjoy doing the job. They love what they are doing so they are willing to work and make sure that their job would come out great which make the customer satisfaction.

Secondly, the research finding will be discussed in term of three factors that can explain the variance in the patterns and methods of skilled labor development. The details are as follows: 1) Factor about self-learning pattern-this factor reflect the ability of the skilled labors to learn on their own in a variety of programs and application for training. Typical, the program refer to giving learner some sort of choice in their learning. For example, allowing the skilled labors to select one or more courses from a training curriculum, allowing the skilled labors to learn on the e-learning that can be taught as self-directed learning. The fact that the skilled labor has a choice and make a decision to select what they would like to learn and up-to-date themselves. 2) Factor about cluster and technology pattern-it reflects about the skilled labor's ability to employ the cluster concept which refers to ability to work in a group from the beginning to the end. It results from the cooperation of skilled labor with others. The skilled labor who understand technology have an advantage in business and gaining a detailed understanding of information technology. Understand in information technology, it will help to understand how to work productivity in the orchid farm, and how to take care of the orchid farm with technology for better work. 3) Factor about coaching pattern-it is about ability to encourage action based on increased self-awareness. Coaching includes supervise and give the assignments. This refers to a style of conversation and listening that encourage increase responsibility and growth.

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