THE FACTORS FOR DEVELOPING TRAINERS IN THE AUTO PART MANUFACTURING FACTORIES (AMF)IN AMATANAKON INDUSTRIAL ESTATE, CHOLBURI PROVINCE

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Abstract - The purposes of this research are to find out the factors for developing trainers in the auto part manufacturing factories (AMF) in AmataNakon Industrial Estate, Cholburi Province. Population in this study included 148 operators to complete the questionnaires and 10 trainers to provide the information on the interview. The research statistics consisted of percentage, mean, standard deviation and step-wise multiple linear regression analysis. The analysis of the training model revealed that: The research result showed that the development factors of trainers in AMF consisted of 3 main factors and 8 sub-factors: 1 (knowledge competency with 4 sub-factors; organization and flow, working experience, task and behavioral analysis and organizational awareness which could predict the success of the trainers at 55.60%. 2 (Skill competency consisted of 4 sub-factors, organization and flow, organizational awareness, task and behavioral analysis and development of emotional quotient. These 4 sub-factors could predict the success of the trainers in skill aspect 55.90%. 3 (The attitude competency consisted of 4 sub-factors, organization and flow, the learning intention, computer competency and education psychology. In conclusion, these 4 sub-factors could predict the success of the trainers in attitude aspect 58.50%.

Keywords - The Development Factors, Trainers Development, Trainer Competencies, Auto Part Manufacturing Factory (AMF), Amatanakon Industrial Estate, Cholburi Province

I. INTRODUCTION

To provide subordinates with proper knowledge and skills, especially any specific special skill to operate their responsible tasks with more efficiency and effectiveness including their appropriate attitude towards the company is crucial resulting in increasing of productivity, enhancing quality, and reducing product defects and accidents [9]. This can also help increase in new recruits' morale and strengthen relationship between subordinates and supervisors [10]. Supervisors play an important role in developing human resources' quality especially in industrial sector. If the supervisors lack training knowledge and training skills or possess improper training skill, it can cause many unacceptable outcomes such as less employees' qualifications compared to business requirement [5], poor product quality, many accidents, high amount of product defects, lack of systematic employee training etc. From the preliminary survey, it was found that most supervisors (66.66%) got insufficient training knowledge [3]. Thus, most supervisors possess only technical skills but are not able to transfer knowledge and skills [12]. Some enterprises may solve the problem by using outsource training. However, they do not know specific skills and technology of certain factories.With the problems and the reasons mentioned above, enterprises should develop training or coaching especially for supervisors to take important part in improving subordinates' skills and knowledge. The researcher had an idea to investigate factors in developing effective training in autopart manufacturing factories. Moreover, the significant purpose for this study includes creating knowledge content in order to develop effective industrial trainers.

II. METHODOLOGY

2.1. Purpose of the research

This research aims to investigate factors in developing trainers in auto part production factories in AmataNakon Industrial Estate, Cholburi Province.

2.2 Hypothesis of the research

The factors on knowledge, skills, and attitudes significantly affect the success of trainer development in auto part manufacturing factories, in AmataNakon Industrial Estate, Cholburi Province.

2.3. Population/Sample

1. The population for this research could be divided into 2 groups:
1.1 Group 1 consisted of 10 trainers or 10 training experts in auto part manufacturing factories, selected by specific sampling technique.
1.2 Group 2 consisted of 148 operators in auto part manufacturing factories that were the members of the auto part production union from 148 factories.

2.4Scope of the study

1. The study is limited to the auto part manufacturing factories in AmataNakon Industrial Estate, Cholburi Province, consisting of 148 auto part manufacturing factories.
2. The study content focused on the competencies or the line of working ability competency based on the idea of David C. McClelland, which consisted of three main competencies, i.e.

knowledge, skill, and attitude [6].The factors affecting the successful training based on the idea of Scott B. Parry [8].

3. The duration for data collection was between July 2015, and October 2015.

2.5Method-Instruments

Research Process

The research was designed with triangular methodology, on both quantitative and qualitative researches with following working steps.

1. Study existing problems, situations, and process of the training by collecting data with interview on 10 specific-selected trainers or the training experts in the auto part manufacturing factories.
2. Study the factors of developing trainers in factories both aboard and in the country, through the theories and related researches on trainer development.
3. Construct research tools and validate the quality by investigating the present training together with the theories and related researches. The data were analyzed and synthesized for writing structured interview and questionnaires. The results of the research instrument validation showed the value between 0.60-1.00 and the overall confidence was 0.981. When considering on each aspect, it was found that the knowledge aspect was 0.955, skill aspect was 0.963, attitude aspect was 0.939, and the success factor was 0.967.

2.6. Data collection

1. Qualitative data were collected by using structure interview form 10 trainers in the auto part manufacturing factories.
2.
3. Quantitative data were collected by using questionnaire completed by 148 operators in the auto part factories working in the manufacturing section from 148 auto part manufacturing factories in AmataNakon Industrial Estate, Cholburi Province.

2.7. Data analysis

Qualitative data were analyzed with content analysis and quantitative data were analyzed by research statistics, i.e. percentage, mean, standard deviation and stepwise multiple regression analysis.

III. RESULTS

1. The results of the literature review and the interview with stakeholders showed that the factors affecting the development of the trainers in the auto part manufacturing factories consisting of details shown in Table 1

Table 1: Factors affecting the development of trainers in auto part manufacturing factories

Main Competencies \ Scholars	)McCleland,1973(	)Spencer&Spencer,1993(	)Lunn,2003(	)Boyatizis,1982(	)Civil Servant,2003(	)Kerkkiat,2003(	)Somkid,2011(	)Arporn,2004(	Total
Knowledge	√	√	√	√	√		√	√	7
Skills	√	√	√	√	√		√	√	7
Attitude	√	√	√	√	√		√	√	7
Personality	√	√	√	√	√	√			6
Motivation	√	√		√		√			4
Behavior			√			√			2
Social Role				√					1
Success						√			1
Understanding							√		1

Table 1 showed factors affecting the success according to the scholars' ideas and the related researches. The first three high frequency items consisted of the factor on knowledge, skill and attitudes. From the study of the training process in the factories, it could be presented as a whole picture and in each aspect of the main factors. The training in the auto part factories used the factors on knowledge, skills and attitudes.

Table 2: Results of the analysis of means, standard deviation, and the opinion level of the interviewees, of the main competencies in overall and in each aspect.

Tree Main Competencies	$\overline{X}$	SD.	Perception Level
Knowledge	3.71	0.66	High
Skill	3.83	0.71	High
Attitude	4.00	0.76	High
Total Means	3.85	0.65	High

From Table 2, it was found that the performance of the trainers in the auto part factories followed the three main competencies - knowledge, skill and attitudes. In the whole picture these performance were in High level ($\overline{X}$ = 3.85(,)S.D. = 0.65(when each aspect was considered, it was found that the attitude was in the high level, arranged by means as follows: the attitude ($\overline{X}$ = 4.00, S.D. = 0.76), skills ($\overline{X}$ = 3.83, S.D. = 0.71), and the knowledge ($\overline{X}$ = 3.71, S.D. = 0.66).The important level of the sub-factors affecting the success of training in the auto part factories consisted of 20 sub-factors [8] [9]. From the perception levels analyzed from the questionnaire answers, it was found that every factor was at the average of high level with 8 sub-factors with the highest means shown in Table 3.

Table 3: Means, Standard Deviation and the importance level of the sub-factors affecting the successful training.

Affecting Factors	$\overline{X}$	SD.	Perceptive Levels
1. Working experience	3.93	0.83	High
2. Task and behavioral analysis	3.89	0.79	High
3. Education Psychology	3.86	0.77	High
4. Organization and flow	3.80	0.89	High
5. Computer Competency	3.80	0.73	High
6. Development of Emotional Quotient	3.78	0.82	High
7. The learning intention	3.78	0.85	High
8. Organizational awareness	3.77	0.87	High

It can be seen from Table 3 that the analysis of sub-factors affecting the success of the training in the auto part manufacturing factories consisted of 3 main factors and 8 sub-factors, i.e. 1 (working experience, 2(task and behavioral analysis, 3 (education psychology, 4 (organization and flow, 5 (computer competency, 6 (development of emotional quotient, 7 (learning intention and 8 (organizational awareness.The results of the analysis of relationship and the stepwise multiple regression analysis of the prediction variables affecting the success of the trainers in the knowledge aspect was shown in Table 4.

Table 4: The result of the stepwise multiple regression analysis of the prediction variables affecting the success of knowledge training.

Steps	Predictable Variables	β	R	R2
1	Organization and flow	.198	.646	.417
2	Working experience	.219	.706	.499
3	Task and behavioral analysis	.255	.732	.536
4	Organizational awareness	.204	.746	.556

P<.05, a = 1.050

From Table 4, it was found that the sub-factors affecting the successful training in the industrial auto part manufacturing factories in the knowledge aspect consisted of 4 variables organization and flow, working experience, task and behavioral analysis and organizational awareness. These 4 variables could predict the successful training in knowledge aspect 55.60%)R2 = 0.556 (with the statistical significance at .05.The results of the relationship analysis and the stepwise multiple regression analysis of the predictable variable affecting the success of the trainer in skill aspect was shown in Table 5.

Table 5: The results of the stepwise multiple linear regression analysis and the stepwise multiple regression analysis of the predictable variable affecting the success of the trainer in skill aspect.

Steps	Predictable Variables	β	R	R2
1	Organization and flow	.229	.663	.439
2	Organizational awareness	.251	.716	.512
3	Task and behavioral analysis	.265	.738	.545
4	Development of Emotional Quotient	.150	.747	.559

P<.05, a =.930

From Table 5, it was found that the sub-factors affecting the success of training in the auto part manufacturing factories in skill aspect included 4 variables, i.e. organization and flow, organizational awareness, task and behavioral analysis and development of emotional quotient. All 4 variables together could predict the training success in skill aspect 59.90%)R2 = 0.559(with the statistical significance at .05.The results of the relationship analysis and the stepwise multiple regression analysis of the predictable variable affecting the success in skill training, in attitude training aspect were shown in Table 6.

Table 6: Results of the stepwise multiple regression analysis of the predictable variable affecting the success in skill training and in attitude training.

Steps	Predictable Variables	β	R	R2
1	Organization and flow	.357	.673	.453
2	The learning intention	.234	.729	.531
3	Computer Competency	.181	.754	.569
4	Education Psychology	.174	.765	.585

P<.05, a = .66

From Table 6, it was found that the relationship analysis and the stepwise multiple regression analysis of the predictable variable affecting the success in skill training, in attitude training and in attitude aspect included 4 variables consisting of the organization and flow, the learning intention, computer competency and education psychology. These 4 variables together could predict the successful training in attitude aspect 58.50%)R2 = 0.585 (with the statistical significance at .05.

DISCUSSION&CONCLUSION

It can be concluded from the results of the study that the competencies with the highest frequency included 3 aspects, i.e. knowledge, skills, and attitudes. Moreover, there were 8 factors affecting the successful training. The results consisted of 3 main factors and 8 sub-factors, i.e. 1(main factor on knowledge aspect consisting of 4 sub-factors: organization and flow, working experience, task and behavioral analysis and organizational awareness. 2 (Skill aspect consisted of 4 sub-factors, i.e. organization and flow, organizational awareness, task and behavioral analysis and development of emotional quotient. 3 (The attitude aspect consisted of 4 sub-factors, i.e. organization and flow, the learning contract, computer competency, and education psychology. The analysis of the factors for development of trainers in AMF showed that the obtained factors could predict the trainers' competencies on knowledge aspect at 55.60%)R2 = 0.556(, on the skill aspect at 55.90)R2 = 0.559(, and on the attitude aspect at 58.50%)R2 = 0.585 (as shown in Fig 1.



Fig 1: Factors for trainers' development in AM

The overall discussion of the results revealed that there were 3 aspects confirming the idea of McClelland [6] who stated that competency was the personal basic characteristics leading to work success. They also conformed to the theory of Bloom [2] dividing the educational objectives into 3 domains, i.e. cognitive, affective, and psycho-motor domain.The factors of success on effective trainers were also in line with the attitude theory by Parry [8] and the results of the research on "The competency

study in the training of the leaders in AMF". Moreover, the results also revealed that after training, the supervisors possessed high competencies in overall, i.e. attitude, skills, and knowledge respectively by Korakot [4].The findings also were in line with the research entitled "The Curriculum Development of the Experience Training in Industrial Work" by Thepnarin (11) who found that training should emphasize the industrial work, personality, human relation, and virtue and morals. This also conformed to the research entitled "The effect of the training form for the personal development in children development program of the air force" revealing that most children's caretakers had positive feeling on the effect of personal development, but there was only little support from the related organizations. The related persons mentioned that the experts in the curriculum and training lacked training skills. In addition, there was a high need to develop professional trainers according to the new training method of Bird [1]. This complied with the research entitled "The action research with the development of the teaching profession of English as the second language" revealing that the program participants obtained the meaningful learning and the profession development and benefit from the practice with confidence in being researchers. This reflected Mingucci [7]'s research on 'practice makes perfect'.

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