

FACTORS AFFECTING COMPETENCY IN 5S ACTIVITIES OF EMPLOYEES AT THAISUMMIT AUTOPARTS INDUSTRY COMPANY LIMITED

Charnvit Boonkhum¹, Nuttawut Rojniruttikul²

Abstract

The objectives of this research were: 1) to study the competency in 5S activities of employees and 2) to study the factors affecting competency in 5S activities of employees. A simple random sampling is conducted by using 400 questionnaires to collect data at Thai-summit Autoparts Industry Company Limited in Thailand. Statistical analysis is conducted by using percentage, arithmetic mean, and standard deviation. Hypotheses were tested by Multiple Linear Regression analysis. The results were as follow:

1) In overall, the competency in 5S activities of employees was at moderate level.

2) Organization policy and Organizational culture affected the competency in 5S activities of employees with statistically significant at the level of 0.01

Keywords: Competency , 5S activities, Autoparts Industry

Introduction

Thailand's economic is currently in the highly competing situation. Most of the businesses have focused strongly on their product and customers. It results in changing of economic structure. The companies that will be able survive and sustain their growth have to adjust their management strategies to be in accordance with both internal and external environmental factors, for example, economic slow down, more aggressive competition, and technological advancement. In order to make the company to be able to survive in such situations, many companies have developed their business strategies. By doing this, it makes the companies to be able to keep their position in the market. There are many different strategies that they choose to implement such as creating corporate culture, improving working method, creating corporate value, reducing cost and increasing productivity, and satisfying customers' needs.

However, the company will be improved or not, it depends on executives' vision and employees' participation. There are many methods to improve the productivity, for example, Quality Control (QC), Total Preventive maintenance (TPM) , Kaizen, Suggestion, and 5S activity. The 5S activity is the standard tool that gives the obvious outcome and allows employees' participation. Moreover, it helps improving productivity, and employees' working skills or efficiency. 5S is the activity that aims to improve working methods within the company by proceeding on 5S principle: Seri, Seiton, Seiso, Seiketsu, and Shitsuke. Seri, Seiton, and Seiso

^{1,2} Faculty of Administration and Management King Mongkut's Institute of Technology Ladkrabang Chalokkrung Rd. Ladkrabang, Bangkok, Thailand 10520 E-mail: Charnvitosk@gmail.com, nuttawut.ro@kmitl.ac.th

are about arrangement of working place and equipment. On the other hand, Seiketsu and Shitsuke are about personnel management, therefore, very important. 5S is the activity that focuses on developing personnel to have self-discipline, as the basis of quality system.

Many companies emphasize on developing their employees since it will affect to the companies' success. Competency is the basis personality the every employee in the company has to possess in order to achieve organizational goals. The competency consists of three dimension Knowledge, Skill, and Attributes. Human resources development will help to develop the competency of the employees. This competency, hence, will make the personnel to work effectively and can develop themselves continuously. It will finally makes the company to reach its goal or beyond. Competency can be divided into two types: Core Competency and Functional Competency. The core competency is the basic characteristic that every employee must possess in order to helps the company to reach the goals. The examples of core competency are: knowledge about the company, passion to study, and responsibility. Another competency is called Functional Competency. The functional competency is the skill that the employee in each position should possess in order to work effectively.

Thai Summit Autoparts Industry Company, one of the most famous autoparts production industry, have also strongly concentrated on its 5S activity in order to develop its employees and productivity to be able to compete in today's market condition. The company have implemented this activity since 2002 and used it as basis of calculating Key Performance Index (KPI) within the company in 2005. It is very necessary for the company to have a continuous development. Thai Summit Autoparts Industry Company concentrates on using 5S activity to be a standard tool to develop and improve its internal work to be most efficient and effective. In addition to that, the company uses the tool to develop its employees, products quality, and enhance working safety that is the basis of productivity improvement. 5S activity is the responsibility and discipline of all level of company's employees. The company must be developed continuously under the concept of "Before We Build Parts, We Build People". This concept is in accordance with the company executive's vision in becoming the biggest autoparts producer in Southeast Asia with the best in quality, design, and innovation. Both product and service must fully satisfy customers' needs.

From all of the above reasons, it makes the reseacrher to be interested in studying about factors affecting employees' competencies in 5S activity of Thaisummit autoparts Industry Company in order to bring the result to develop the company's 5S activity into the most efficient way.

Research Objectives

1) To study the level of competency in 5S. of employees in Thaisummit autoparts Industry Company.

2) To study the factors affecting the competency 5S of the employees in Thaisummit autoparts Industry Company.

Research Hypothesis

Organization policy, communication, organizational culture, training, rewards and compensation and participation of employees affect the competency in 5S activity of employees in Thaisummit autoparts industry.

Conceptual Framework

The researcher study about “Factor affecting competencies in 5S activity of employees at Thaisummit autoparts Industry Company Limited”. Competency can be divided into three parts: knowledge, skill, and attitude. The researcher brought the concept of competency of McClelland (1960) and his research about “Factor affecting in principle of quality management” to be the concept of the research. The former research has divided competency into three dimensions: knowledge, skill and attitude. Moreover, he had study about many factors such as organizational policy, communication, organizational culture, training, reward and compensation, and employees’ participation. The research got the concept of organizational policy from these factors. The policy is an important factor for management since it is the guideline for working. It has to be clear in the objectives since it is important to the employees’ discretion in each operation level for working efficiency and reaching the goals. Communication concept is about receiving and sending of meaning and message, including, responding, sharing, and interaction. Organizational Culture concept is explaining about internal working environment, including assumption, belief, and value that all of the employees are sharing and using it as a working direction. The concept of Training is the individual learning activity in order to improve his/her knowledge, skill, and attitude, until improving of working behavior and attitude have taken place. The concept of reward and compensation is about distributing the benefits in the form of salary, wages, compensation, or any other forms of interests that are given out in return of working. Employee Participation concept is the basis of every activity that broaden the management which is one of the method making participating in company’s working activity. The Conceptual Framework of this research is as follows:

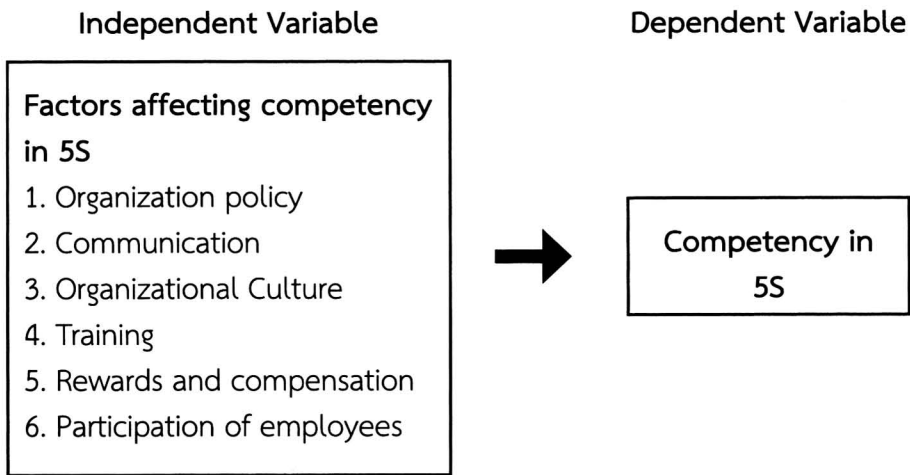


Figure 1 : Conceptual framework

Scope of Research

Population and Sample

The population in this research is 3,860 employees in the Thaisummit autoparts industry (data from Human Resources and General Administration. Thaisummit autoparts industry Company as of September 16, 2556), with a sample of 400 employees.

Research Variables

1. Independent variables are the organization policy, communication, organizational culture, training, rewards and compensation and participation of employees.

2. Dependent variable is Competency in 5S

3. Research timeframe

Data collection was conducted is between October 2013 to November 2013

Research Method

The researcher uses the questionnaire as a research instrument. It is divided into six main parts:

Part 1 Question about the personal factors of the respondents. It includes gender, age, marital status, level of education, duration of work, current job, agencies, monthly income and participation in 5S activities.

Part 2 Question about the basic knowledge and practice of 5S.

Part 3 Question about the skills in practice 5S using a five point Likert Scale questionnaire.

Part 4 Question about attitudes towards 5S activities, using, a five point Likert Scale questionnaire.

Part 5 Question about the factors affecting the competency of 5S activities, which include policy organization, communication, organizational culture, training, rewards and compensation and participation of employees.

Part 6 Open-ended question for recommendations to improve competency in 5S activities

Data collection

The questionnaires were distributed to the samples by hand. The researcher got the completed 400 questionnaires from these samples.

Data analysis

In this research, statistical analysis of data using statistical software packages. Statistics for data analysis are percentage, arithmetic mean, standard deviation. Multiple linear regression analysis was used to test the hypothesis.

Results

Table 1 Personal Factors

Personal Factors	Frequency	Percentage
1. Gender		
Male	252	63.00
Female	148	37.00
Total	400	100.00
2. Age		
≤ 20 years old	8	2.00
>20 - 30 years old	119	29.75
>30 - 40 years old	174	43.50
>40 - 50 years old	95	23.75
> 50 years	4	1.00
Total	400	100.00
3. Marital status		
Single	173	43.25
Marriage	221	55.25
Divorced	6	1.50
Total	400	100.00

Table 1 Personal Factors (Continue)

Personal Factors	Frequency	Percentage
4. Education		
Below High school / Vocational	12	3.00
High school / Vocational	35	8.75
Diploma / high vocational	124	31.00
Bachelor degree	218	54.50
Postgraduate	11	2.75
Total	400	100.00
5. Work experience		
≤ 2 years	29	7.25
>2 - 5 years	46	11.50
>5 - 8 years	59	14.75
>8 - 11 years	125	31.25
> 11 years	141	35.25
Total	400	100.00
6. Position		
Operational level	49	12.25
Staff level	184	46.00
Supervisor level	75	18.75
Engineer level	84	21.00
Manager	4	1.00
General manager	4	1.00
Total	400	100.00
7. Department		
Production	82	20.50
Planning	60	15.00
Quality assurance	38	9.50
Sales / Warehouse / Shipping	158	39.50
Planning parts store	4	1.00
Engineering	58	14.50
Total	400	100.00

Table 1 Personal Factors (Continue)

Personal Factors	Frequency	Percentage
8. Monthly income		
≤ 10, bath	20	5.00
>10, – 15, bath	104	26.00
>15, – 20, bath	92	23.00
>20, – 30, bath	137	34.25
> 30, bath	47	11.75
Total	400	100.00
9. Participation in 5S activities		
Never	14	3.50
1 time	16	4.00
2 times	28	7.00
3 times	29	7.25
4 times	14	3.50
More than 4 times	299	74.75
Total	400	100.00

From table 1, it was found that the most of Thai Summit Autoparts employees are male who older than 30 years old but less than 40 years old. Their marital status is married. They graduated in Bachelor degree and had more than 12 years working experience. Most of them are staff position in Sales / warehouse / shipping section with monthly income range from 20, to 30, baths and they have ever participated in 5S activity more than four times.

Table 2 Mean (\bar{X}), Standard deviation (S.D.) of 5S competency of Thaisummit autoparts industry employees.

Dependent Variable	\bar{X}	S.D.	Level
Competency of 5S	3.39	0.386	Moderate

From table 2, it was found that employees of Thai Summit Autoparts employees have competencies in the moderate level, which is 3.39. Each employee do not have significant difference in their competency considering from standard deviation that is equal to 0.386.

Table 3 Mean (\bar{X}), standard deviation (*S.D.*) and level of factors that affect the competency in 5S activities of Thaisummit autoparts industry employees.

Factors affecting the competency of 5S	\bar{X}	<i>S.D.</i>	Level	No.
Organization policy	4.32	0.507	High	1
Communication	4.10	0.599	Moderate	4
Organizational Culture	4.18	0.568	Moderate	2
Training	4.08	0.597	Moderate	5
Rewards and compensation	4.00	0.711	Moderate	6
Participation of employees	4.14	0.649	Moderate	3
Total	4.14	0.605	Moderate	

From table 3, it was found that the level of factor affecting employees' capabilities in 5S activity of Thai Summit Autoparts Industry Co., Ltd is in the high level by considering the overall Mean value of 4.14. From Standard Deviation value (*S.D.*) of 0.605, it shows that each employee has quite the same level of factor affecting employees' competencies in 5S activity. It can be seen that the factors of organization policy, organization culture, participation employee, communication, training, and rewarding and compensation are in the high level with values of 4.32, 4.18, 4.14, 4.10, 4.08, and 4.00, respectively.

Table 4 Multiple linear regression analysis of factors affecting the competency in 5S activities of Thaisummit autoparts industry employees

Variable	<i>b_j</i>	<i>t</i>	<i>p</i> -value
Constant	1.578	10.870	0. **
Organization policy	0.162	3.173	0.002**
Communication	0.024	0.503	0.615
Organizational Culture	0.152	2.641	0.009**
Training	0.012	0.206	0.837
Rewards and compensation	-0.037	-0.870	0.385
Participation of employees	0.113	2.229	0.026

$R = 0.560$; $R^2 = 0.314$; $SEE = 0.322$; $F = 29.925$; p -value = 0. ** Remark: ** $p < 0.01$

variables could explain the variation of competencies in 5S activity of Thai Summit From table 9.3, it was found that, organizational culture and organization policy have an effect on competencies in 5S activity of Thaisummit Autoparts Industry employees, with 0.01 statistical significant level. All independent Autoparts Industry employees at 31.40%

Discussion

Organization policy is the factor that has the most effect on employees' competencies in 5S activity. The company's executive must understand the 5S concept and work hard to implement this activity in order to have a company policy that is in consistence with employees' working and, moreover, to have an efficiency on implementing activity together with working. It is in accordance with policy concept of Laswell & Kaplan that have stated that the policy is the direction for working in both company and broad levels. It is important for consideration of executive and workers in each operation level for working efficiency and reaching the goals. The policy and management are closely related since the policy is the tool for pointing out the management direction. It is the data that the executive uses for the company to reach its goal effectively.

Organizational culture is the second factor affecting employees' competencies in 5S activity. It is like the employees' way of lives. The organizational culture is said to be working tradition. If Thaisummit Autoparts Industry company can make the employees to understand about 5S activity and its advantages, it will make the employees to be confident and, hence, willing to participate in the activity continuously until it become the organizational culture. It is in consistent with the concept of Kluckhohn and Kelly, who have stated that the organizational culture is an exchangeable way of life that makes each company to be unique. The organizational culture is the key that make the company to be unity.

Recommendations

Recommendations from this research

For the organization policy, the company's executive should strongly promote and emphasis on 5S activity. Moreover, the organization policy should be set in accordance with 5S activity in order to allow the employees to be able to fully developing themselves continuously. It will make the 5S activity to be efficient and, hence, make the company to have the sustainable growth.

For the organizational culture, it is an important factor that will make the company's personnel to behave and think in the same direction. The culture is similar to the way of life. It means that if the company have a good culture, it will make the activity or working in the company to be even better. Thus, development of personnel and company must be done in parallel by making the company's activity to be a part of everyday working habit.

Recommendations for future research

This research is conducted to study about factor affecting competencies in 5S activity of Thaisummit Autoparts Industry employees. For the future study, if ones wish to study on the

same topic, Researcher may conduct a research in the company with advance in 5S activity and have different size of organization.

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