

MOTIVATION FOR THE DEVELOPMENT OF JOB PERFORMANCE OF PRODUCTION WORKERS IN A BASIC LUBRICANT PRODUCTION FACTORY IN RAYONG PROVINCE

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ABSTRACT

This research was to study personal factors of employees and motivation factors related to development of job performance of production workers in a basic lubricant production factory in Rayong Province by using questionnaires as a research tool. The population of the study consisted of 110 production workers in a basic lubricant production factory in Rayong Province. The data were analyzed by means of percentage, mean, standard deviation. The hypotheses were tested through the Independent Sample t-test, One-Way Analysis of Variance and Multiple Linear Regression at the reliability level of 95 percentages.

The study revealed that differences in age, marital status, education, seniority, working position and average monthly income made no differences to development of job performance of the production workers.

External motivation factors in policies and organization administration of the development of job performance had a positive correlation or were in line with the development of the production workers' knowledge in a basic lubricant production factory in Rayong Province. An external motivation factor for working stability had a positive correlation or was in the same direction with the development of the production workers' visible working skills in a basic lubricant production factory in Rayong Province.

Internal motivation factors for work achievement and professional growth had a positive correlation with job performance development of the production workers' knowledge in a basic lubricant production factory in Rayong Province. Internal motivation factors for work achievement, professional growth, recognition, and likes/dislikes of the job had a positive correlation with the job performance development of the production workers' working skills in a basic lubricant production factory in Rayong Province.

Keywords: Motivation, job performance, employee, production worker

Statement of the problems

Human resource development is one of the factors considered to be very important in any organization because human resource is the most significant asset of the organization that it is one of the strategies used to gain advantages over others. (Thepwan, 2010, 109) Therefore, many organizations try to seek for strategies or tools that help them develop their personnel such as talent management program, skill-based human resource management, performance management, and competency-based management etc. (Phuwitthayaphan, 2011, 36)

Many business organizations in Thailand have been aware of this and have brought potential system to manage their personnel. Private sectors and state enterprises also pay attention to this method and try to develop their own potential system. Basic lubricant production factories which are located in Rayong- an important petroleum-based factory zone of Thailand- are also finding ways to apply this to their personnel development. (Ministry of Energy, 2014)

Entrepreneurs in basic lubricant production industries are finding ways to develop themselves including manufacturing technology, organizational structure development, working environment, and working potential of their employees. Personnel in the organization are the most important self-propelled tool, that is, according to human capital concept, personnel are the valuable asset of the organization, but real value is not the personnel themselves, but their internal potential (knowledge, skills, self-thinking,

personality, motivation/attitude) which can add more revenue to themselves and the capability to use their internal potential to creatively make effective work which is the real potential added to the organization.

Nowadays there are two basic lubricant production factories in Thailand. One is in Chon Buri and the other is in Rayong. The basic lubricant production factory in Rayong Province is one of many organizations that uses potential concept to develop its personnel since it was founded 15 years ago. Now the company is improving regularly and growing continuously. This study will figure out factors affecting job performance development of the production workers in a basic lubricant production factory in Rayong Province. The findings of this study can be used for personnel development process of any organization. Moreover, they can be a guideline for personnel departments to use as a strategy to define job performance needed for evaluating and judging reasonable payment of the organization.

Objectives

This research aimed to study motivation factors related to job performance development of the production workers in a basic lubricant production factory in Rayong Province.

Research hypothesis

Motivation factors are related to job performance development of production workers in a basic lubricant production factory in Rayong Province.

Conceptual framework

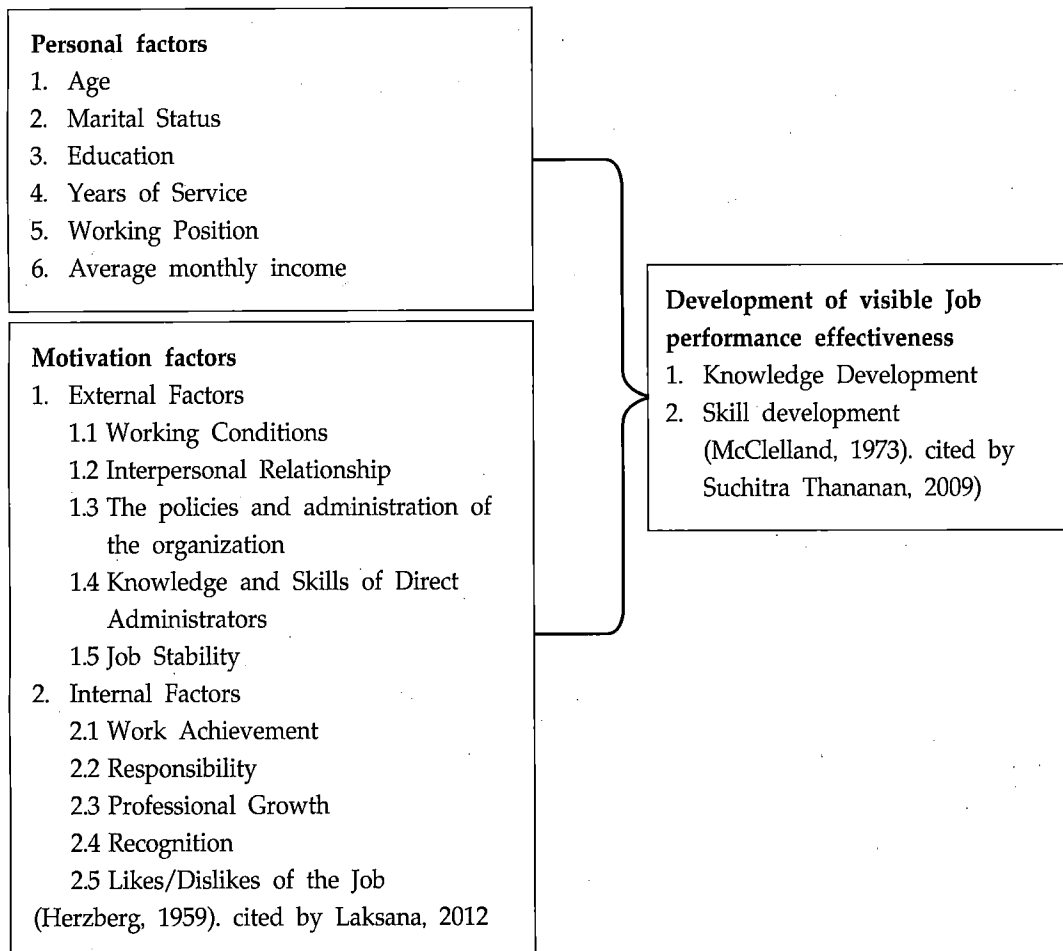


Figure 1-1 Research framework

Expected results of the research

The findings can be used to improve job performance efficiency, learning behavioral modification, and restructuring management of basic lubricant production factories.

Related literature

Herzberg's Two-Factor Theory

Laksana (2009, 71-73) mentioned about this theory that satisfaction in a job done is incentives like better performance which consisted of two factors: Hygiene factor or external factor is a factor which is not a direct incentive to increase work efficiency and is not keen on encouraging people to work more, but it is a prerequisite to prevent people's

dissatisfaction with work caused by environmental conditions that are not related to the components of the job.

1. Working conditions means the physical conditions of work, such as light, sound, air, hours of operation, including environmental characteristics, such as equipment or tools used in the operation.
2. The relationship of individual (Relationship with supervisors, peers and subordinates) means contact, including whether the actions or words that express their relationships to each other, ability to work together and understand each other.
3. The policies and administration of the organization means management of the organization which must have a clear policy and a division that is not

redundant and having fairness.

4. The ability of the supervisor means the ability of supervisors in operation or in the administration of justice, including the ability to solve problems and to guide the work of subordinates.
5. Stability in the job means a person's feelings towards stability in the work and stability of the organization or the sustainability of profession.

Motivation factors or internal factors will encourage satisfaction and motivation of people in the organization to work more effectively. These factors are:

1. Achievement means that people feel the work is completed and successful and that they have the ability to solve problems as they occur as well as preventing them from taking place again and finally feel satisfied at the results of the work.
2. Responsibility means satisfaction arising from being fully delegated responsibility and authority and not to be too much controlled over which may cause the lack of freedom in the work.
3. Advancement means the task success receives a response such as being promoted to a higher position as well as getting an opportunity to further education and training.
4. The recognition means to be respected, whether by a supervisor or by anyone in the agency, including the deepest congratulations, encouragement, or any other actions that demonstrate acceptance in ability.
5. Likes/dislikes of job or nature of the work means the work that is challenging and needs creativity and personal special ability to get the tasks done so this makes a person feel like or dislike the job or make he/she happy and proud as well as promoting quality of life of individuals.

Research methodology

The study of factors influencing job performance development of the production workers in a basic lubricant production factory in Rayong Province is a survey research using questionnaires to collect data. The researcher has defined the research methods and includes population detailed as follows.

1. Determination of sample

2. The construction of research tools
3. Data collection methods
4. Characteristics of the questionnaire
5. Reliability of the research tools
6. Data and analysis
7. Statistics used in the research

Determination of sample

The sample used in this research consisted of 120 production workers in a basic lubricant production factory in Rayong Province in 2013.

Sampling Procedure

The sample used in this research consisted of 120 production workers in a basic lubricant production factory in Rayong Province. Sample was calculated using a formula of Krejcie and Morgan (Krejcie and Morgan, 1970 cited by Loetphuttharak, 2012, 147-148) at the reliability level of 95 %, the error of not more than 5%. The formula used to calculate the sample size is as follows:

From the formula

$$n = \frac{\chi^2 N p (1-p)}{e^2 (N-1) + \chi^2 p (1-p)}$$

n = The size of the sample

N = Population

e = 0.05 at the reliability level of 95 percent

χ^2 = Chi-square df = 1, and a reliability level of 95% ($\chi^2 = 3.841$)

p = The proportion of population characteristics of interest ($p = 0.5$)

$$n = \frac{3.841 * 120 * 0.5 * (1-0.5)}{(0.05)^2 * (120-1) + 3.841 * 0.5 * (1-0.5)}$$

$$= 92 \text{ subjects}$$

Therefore, the sample size used in this study consisted of 92 subjects. The number of the reserve sample was 18 subjects. Altogether, this study used a total number of 110 people. The researcher collected by means of simple random sampling, selecting the sampling from the employees in a basic lubricant production factory in Rayong Province.

Data Collection

The researcher collected data for only a single set.

The questionnaires were distributed to the basic lubricant manufacturing factory in Rayong Province. The period of data collection was between January to March 2014.

Results

The researcher offers an overview and summary results of research according to the hypothesis of the study as follows:

Results of Hypothesis Testing

Part 1: The Analysis of Personal Factors

The results showed that production workers in a basic lubricant production factory in Rayong Province were all male, age range 36-45 years accounted for 62.7 percent and 25 -35 year age range accounted for 25.5 per cent respectively. Married status was 61.8 per cent and unmarried status was 38.2 per cent. Advanced vocational education accounted for 67.3 percent. Bachelor's degree was 31.8 per cent and 0.9 per cent was master's degree. Number of service year was mostly between 16-20 years which was accounted for 50.9 per cent and between 11-15 years was 24.5 per cent. Operational staff accounted for 74.6 per cent supervisor-level or above was 24.5 per cent. The average monthly income of more than 30000 Thai baht accounted for 76.4 percent. The average monthly income of between 10000-20000 Thai baht accounted for 12.7 percent.

Part 2: The analysis of comments on the priority of the external motivation factors of the production workers in a basic lubricant production factory in Rayong Province by using mean and standard deviation.

It was found that production workers in a basic lubricant production factory in Rayong Province comment about the external motivation factors of all items in the levels of considerable importance. When classified into each different item, it was found that employees value from high to low in the first three items as follows: 1) External motivation factors for job stability (\bar{X} = 4.00) 2) External motivation factors for knowledge and skills of direct supervisors (\bar{X} = 3.71) 3) External motivation factors for working conditions (\bar{X} = 3.63), respectively.

Part 3: The analysis of comments on the priority of the internal motivation factors of the production workers in a basic lubricant production factory in Rayong Province by using mean and standard deviation.

The research found that production workers' opinion about the internal motivation factor overall level was in moderate to high in the order mean from high to low, as follows: work achievement (\bar{X} = 3.92), like / dislike of the job (\bar{X} = 3.80), and responsibility (\bar{X} = 3.70), respectively.

Part 4: The analysis of job performance development in the aspects of knowledge and skill development by using mean and standard deviation.

It was found that the production employees have opinions about the development of the job performance overall at a high level in all aspects. Sorted by average, in descending order: Knowledge development (\bar{X} = 3.69) and skill development (\bar{X} = 3.47)

Part 5: Results of the quantitative analysis of the relation of multiple variables with a technical analysis of Multiple Linear Regression in order to explain the relationship between external motivation factors and internal motivation factors with job performance development of production workers in a basic lubricant production factory in Rayong Province.

The results revealed that the second hypothesis that external motivation factors for work and internal motivation factors for work of the production workers in a basic lubricant production factory in Rayong Province have a relationship with job performance development of the employees in both knowledge and skills.

2.1 External motivation factors in the policies and administration of the organization for job performance development were related to the development of job performance of the production workers' knowledge in a basic lubricant production factory in Rayong Province at the significant level of 0.05 and the equations can be displayed as follows:

$$\text{Unstandardized } \hat{Y} = 0.766^* + 0.193X_1 + 0.176X_2 + 0.271X_3^* + 0.077X_4 + 0.091X_5$$

$$\text{Standardized } \hat{Y} = 0.198X_1 + 0.169X_2 + 0.287X_3^* + 0.074X_4 + 0.098X_5$$

When \hat{Y} = Development of job performance of the production workers' knowledge in a basic lubricant production factory in Rayong Province

- X_1 = Working conditions
 X_2 = Interpersonal relationship
 X_3 = Policies and administration of the organization for job performance development
 X_4 = Knowledge and ability of direct supervisors
 X_5 = Job stability

2.2 External motivation factors in job stability have a relationship with the development of job performance of the production workers' skills in a basic lubricant production factory in Rayong Province at the significant level of 0.05 and the equations can be displayed as follows:

$$\text{Unstandardized } \hat{Y} = 0.734 + 0.057X_1 + 0.208X_2 + 0.142X_3 - 0.016X_4 + 0.414X_5^*$$

$$\text{Standardized } \hat{Y} = 0.055X_1 + 0.186X_2 + 0.141X_3 - 0.014X_4 + 0.420X_5^*$$

When \hat{Y} = Development of job performance of the production workers' skill in a basic lubricant production factory in Rayong Province

- X_1 = Working conditions
 X_2 = Interpersonal relationship
 X_3 = Policies and administration of the organization for the job performance development
 X_4 = Knowledge and ability of direct supervisors
 X_5 = Job stability

2.3 Internal motivation factors in work achievement and profession advancement have a relationship with the development of job performance of the production workers' knowledge in a basic lubricant production factory in Rayong Province at the significant level of 0.05 and the equations can be displayed as follows:

$$\text{Unstandardized } \hat{Y} = 0.309 + 0.320X_1^* + 0.092X_2 + 0.392X_3^* + 0.103X_4 + 0.023X_5$$

$$\text{Standardized } \hat{Y} = 0.273X_1^* + 0.086X_2 + 0.465X_3^* + 0.102X_4 + 0.028X_5$$

When \hat{Y} = Development of job performance of production workers' knowledge at a basic lubricant production factory in Rayong Province

- X_1 = Feelings of work achievement
 X_2 = Feelings of responsibility
 X_3 = Profession advancement
 X_4 = Feelings of recognition
 X_5 = Likes/dislikes

2.4 Internal motivation factors in work achievement, profession advancement, recognition, and likes/dislikes of the job have a relationship with the development of job performance of the production workers' skills in a basic lubricant production factory in Rayong Province at the significant level of 0.05 and the equations can be displayed as follows:

$$\text{Unstandardized } \hat{Y} = -0.036 + 0.356X_1^* - 0.103X_2 + 0.322X_3^* + 0.249X_4^* + 0.142X_5^*$$

$$\text{Standardized } \hat{Y} = 0.283X_1^* - 0.090X_2 + 0.358X_3^* + 0.230X_4^* + 0.161X_5^*$$

When \hat{Y} = Development of job performance of production workers' skills at a basic lubricant production factory in Rayong Province

- X_1 = Feelings of work achievement
 X_2 = Feelings of responsibility
 X_3 = Profession advancement
 X_4 = Feelings of recognition
 X_5 = Likes/dislikes

In addition, part 5 was an open-ended question and the employees suggested that the policies and administration of the organization should be clearer defining clearer roles of employees and supervisors in order to stimulate motivation in developing visible job performance of the workers.

Discussion

According to the results of the study; there are issues to be discussed detailing as the following. According to the hypothesis that the motivation factors related to development of job performance of the

production workers in a basic lubricant production factory in the province of Rayong, the research found that both external and internal motivation factors were associated with the development and performance of the production workers in a basic lubricant production factory statistically significant at the 0.05 level, or in the same direction.

1. External motivation factors, namely the policies and administration of the organization in term of job performance of the workers were related to the development of job performance of production workers' knowledge in a basic lubricant production factory in Rayong Province. This may be because the current development of the performance of the production workers in a basic lubricant production factory has not been declared as explicit policies. There was only a pilot system of performance development used only in some units of the production line.
2. External motivation factors in job stability had a relationship with the development of job performance of the production workers' skills in a basic lubricant production factory in Rayong Province. This may be because employees want to create stability in the job because of seniority.
3. External motivation factors such as working conditions, interpersonal relationships, and the knowledge and skills of direct supervisors had no significant influence on the development of job performance of the production workers in a basic lubricant production factory in Rayong Province. This may be because employees had obtained more knowledge from job performance development training program and was also increased by seniority and accumulated experiences.
4. Internal motivation factors for work achievement and profession advancement had a relationship with the development of job performance of the production workers' knowledge in a basic lubricant production factory in Rayong Province. This may be because employees expected to develop enhanced knowledge to contribute to the success and progress of the work and these factors affected their wages and salaries.
5. Internal motivation factors for work achievement,

profession advancement, recognition, and likes/dislikes of the job had a relationship with the development of job performance of the production workers' skills in a basic lubricant production factory in Rayong Province. This may be because employees had obtained more knowledge from seniority, self-study, and accumulated experiences.

6. Internal motivation factors for work achievement, profession advancement, recognition, and likes/dislikes of the job had a relationship with the development of job performance of the production workers' skills in a basic lubricant production factory in Rayong Province. This may be due to the development of performance skills required multiple internal motivation aspects and might be caused by working seniority, and stable average monthly income which made them reluctant to develop performance skills to the fullest potential unless they had enough internal motivation.
7. Internal motivation factor, particularly feeling of responsibility had no significant influence on the development of job performance of the production workers at a basic lubricant production factory in Rayong Province. This was probably because normal employees didn't want to be responsible for a higher task even though they were capable of doing the task.

Recommendation

The recommendations for the study are as follows: Suggestions for Applications of Research Findings

1. The study revealed that external motivation factors of employees in a basic lubricant production factory were related to the development of job performance, so administrators should create external motivation factors for production workers by adding priorities as follows.

1.1 For the policies and administration of organizational performance improvement, administrators should declare its intention and define clearer policies and organizational development management and communicate clearly to production workers, as well as determining organizational development, performance management plan, and compensation to keep employees motivated in developing their

performance.

1.2 Creating confidence that the company is stable, being able to yield income and welfare, such as funding contributions, social security fund, and implementing ESOP system (Employee Stock Option) including options for employees to participate as an owner of the joint venture company will strengthen stability in work and promote the development of performance of production workers in a basic lubricant production factory in Rayong Province.

2. The study also revealed that internal motivation factors of employees in a basic lubricant production factory were related to the development of job performance, so administrators can create internal motivation factors for production workers by adding priorities as follows.

2.1 Work achievement: Administrators should encourage employees to express their ability since they are older and getting more experiences while they may not have the platform to express themselves, for example, being given opportunity to propose ideas that guide the operations in an executive meeting, being representatives to co-operate or to coordinate with other agencies. This can be done by setting up clear goals and time frame clearly to evaluate the outcome when their work is completed.

2.2 Professional Advancement: Administrators should define career path and organize trainings to develop knowledge and skills of the employees regularly, assigning tasks and let the workers be responsible for a more important task, so that they have the opportunity to progress to a higher position. Moreover, the executives should evaluate periodically and use the outcome for promotion of employees as well as implement it seriously.

2.3 Executives should show appreciation with a compliment or congratulation announcement when employees work successfully on the target and the time limit. This will create a sense of contributing to success in work and participation in the transfer of knowledge process. This will also lead to recognition and respects among production workers in a basic lubricant production factory in Rayong Province.

2.4 For likes/dislikes of the job, administrators should implement "Happy Workplace Project" by holding leisure activities for employees to create sense of obligation to the factory and arrange family visits at work for them to take pride in the job. Moreover, administrators should hold the meeting to communicate and give other job description of nearby departments which can be rotated to change to work in the same group. This also helps to reduce work boredom among the workers and stimulate learning environment in the organization.

Suggestions for further research

1. Further research should cover the study of performance in each department of a basic lubricant production factory in Rayong Province according to job description which can be classified as; the quality inspection department, technology department, maintenance department- in order to let employees develop their performance exactly as they want so that they can perform the job more efficiently.
2. This research was implemented only in the production department, so further research is possible to study other sample groups, for example, in other industries such as oil refinery, and plastic manufacturing factory etc, in order to obtain the guidelines for the development of visible job performance of the employees.

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