

## QUALITY OF WORKING LIFE OF INDUSTRIAL EMPLOYEES CASE STUDY: INDUSTRIAL ESTATES IN RAYONG PROVINCE

Sucheera Thanawut<sup>1\*</sup>, Napitchya Cherdchom<sup>2</sup>, Khemmaya Kiniman<sup>3</sup>, and Lakkana Teerasakworakun<sup>4</sup>

<sup>1</sup>Faculty of Management Science, Nakhon Ratchasima Rajabhat University,  
Nakhon Ratchasima, Thailand

<sup>2</sup>Faculty of Management Technology, Rajamangala University of Technology  
Srivijaya, Nakhon Si Thammarat, Thailand

<sup>3</sup>Faculty of Educational, Burapha University, Chonburi, Thailand

<sup>4</sup>TMSG Co., Ltd., Bangkok, Thailand

Received: April 12, 2020

Accepted: June 10, 2020

### ABSTRACT

The research on a quality of working life of industrial employees in industrial estates of Rayong province aims at studying and comparing quality level of working life of industrial employees in industrial estates of Rayong province. This research was conducted through a quantitative method. Questionnaires composed of questions related to quality of life in 13 aspects were used as research tool for collecting information from the sample group comprising 384 industrial employees in industrial estates of Rayong province. The questionnaires were collected for an analysis to find out statistical values such as mean, standard deviation, etc. The research hypotheses were statistically tested by Independent Sample t-test, and Analysis of Variance (ANOVA). Based on findings, the quality of working life based on opinion of industrial employees in industrial estates in Rayong province, was at moderate level. The aspect gaining the highest average value was working environment whose average value was at high level, followed by organizational pride, leadership and authority granted to employees, creativity in work, sufficient resources for work, career improvement: career growth and stability, fair administrative system, job satisfaction, good relationship building in organization, total life space, freedom at work, fair wage/salary, appropriate fringe benefit and allowance, and training for potential and ability improvement, respectively. Considering differences of personal factors, the employees having different age range and work experience had different level of working life quality at significance level of 0.05, whilst other personal factors, namely, gender, marital status, educational background and monthly income did not have any statistical difference on quality of working life.

**Keywords:** Quality of working life, Industrial employees, Industry, Rayong

### Introduction

The Strategic Plan published by the Office of the Permanent Secretary, Ministry of Labor

(2017-2021), determined the Guidelines for Effective Management of Integrated Labor Strategy according to vision under 20-year

---

\*corresponding author: e-mail: [sucheerat.nrru@gmail.com](mailto:sucheerat.nrru@gmail.com)

Strategy Framework for National Human Resources Development (2017-2036) underlining the concept of “human resources as valuable assets for sustainability”, including a vision mentioned in 5-year Master Plan for Thai Labor Development (2017-2021), whose 1<sup>st</sup> phase was called productive manpower period. The concept of this phase was to have “high potential labors with good quality of life”. It was in accordance with 20-year National Strategic Framework (2017-2036) and 12<sup>th</sup> National Economic and Social Development Plan (2017-2021) (Strategy and Planning, Office of the Permanent Secretary, Ministry of Labor, 2017).

One of important factors greatly affecting organizational success was its members. If the employees were assured of a good quality of working life, their quality of work tended to be improved, ultimately leading to better quality of products and services of the organization and sustainable organizational development. (Chirawatsawong, 2011). Working was important to human life; it might be considered as an activity that the people spent their lifetime the most, particularly in the era of industry. People estimate spent at least one third of their lifetime in factory or office. In the near future, people would be likely to spend more of their lifetime at work. Furthermore, working-age population takes the biggest part of Thai population structure. They are considered as an essential force to drive national economy. Therefore, public and private sectors have attached importance not only to potential development but good quality of life of this population group. (Institute for Promotion of Occupational Safety, Health and Working Environment (Public Organization), 2019).

Rayong province is located at the center of the Eastern region of Thailand. Its provincial development project is in line with Eastern Seaboard project. As a result, the provincial

economy has been expanding continually with continuous demand of labors. The rate of unemployed labors was very little comparing with those of other provinces (Rayong Provincial Labor Office, 2018). The provincial development framework of Rayong Province has been used as guidelines to achieve the missions of the province. The philosophy of sufficiency economy has also been used as a guiding philosophy. Changes are considered as opportunities and threats of current and future developments. Furthermore, Rayong aims at applying ideas and innovations for its development mission while is in accordance with 12<sup>th</sup> National Economic and Social Development Plan, specifically on development of economic area, focusing on developing Eastern Seaboard to be a main production base which is stably and efficiently expanded and consistent with the potential of such area.

This project needs acceptance and participation from communities as it aims at providing quality transportation service, infrastructure, public facilities, social services and environmental management which are accessible for everyone, also promoting sustainable livelihood and occupations of the people along with development of various production sector, and becoming a city of good quality of life. This is to enhance provincial development of Rayong where its people are healthy, receive good social welfare and environment (Industrial Office of Rayong Province, 2016). Due to diverse workforce in industrial estate in Rayong with different background and different quality of life, the researcher was interested in studying on quality of working life of industrial employees in industrial estates of Rayong province in order to provide a guidelines on how industrial sector should enhance work life quality of these employees. As the human is the heart of manufacturing process which impacts the profitability and a

great indicator of organizational ethics, labors are what we should pay attention to.

### Research Objectives

1. To study on level of the quality of working life of industrial employees in industrial estates of Rayong province;
2. To compare the quality of working life of industrial employees in industrial estates of Rayong province base on each personal factor.

### Research Benefits

1. The research leads us to understand levels and differences of the quality of working life of industrial employees in industrial estates of Rayong province.
2. The research allows us to use its results of research as reference for developing the

quality of working life of industrial employees according to their requirements, and providing sufficient working quality for their living.

3. The research can be used as guidelines for organizational executives to establish policy, determine improvement approaches to enhance the quality of working life of employees, ultimately leading to positive impact on organization productivity and efficiency.

### Research Hypothesis

Different personal factors, namely, gender, age, marital status, educational background, work experience, and monthly income of industrial employees in Rayong province were correlated with different quality of working life.

### Conceptual Framework of Research

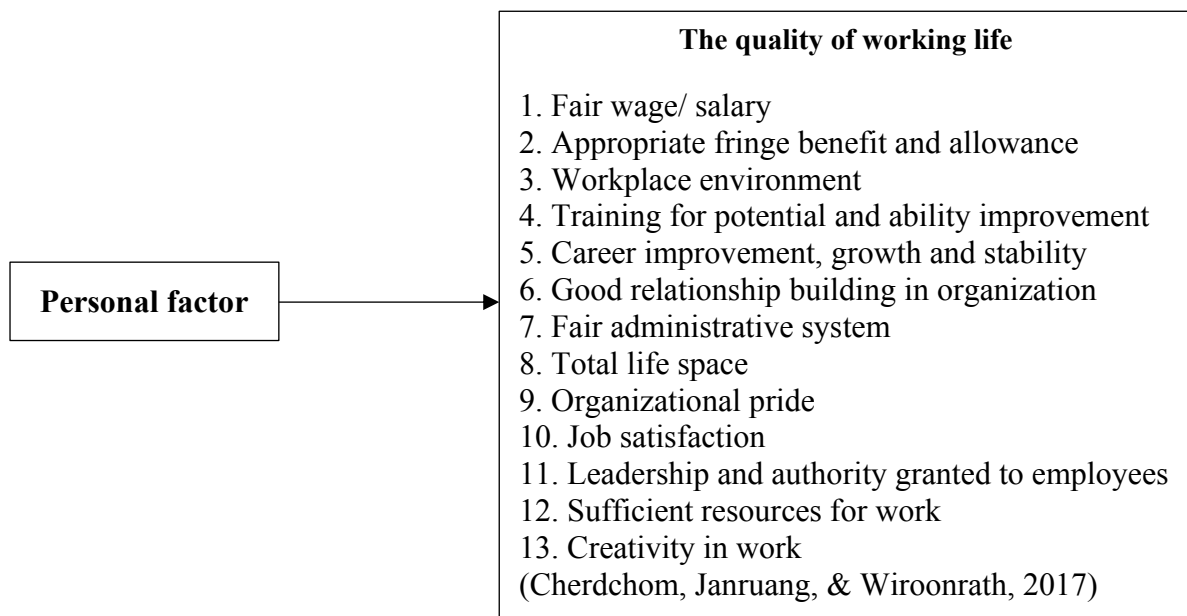


Figure 1 Conceptual framework of research

### Literature Review

Being employed helps people meet their basic needs in life and is the source of income. Work also determines their status and social

position. The executives should attach importance to feelings and thoughts of members in the organization and consider human as valuable asset of organization. If people in each

organization had a good quality of working life, it would lead to a quality production, increasing productivity, improving services, performance management, employee satisfaction, work environment and the image of the organization. (Insorn & Bangphan, 2016) Therefore, enhancing quality of working life is necessary and greatly important for these employees. Experts provided definitions of working life quality as follows;

Walton (1974) stated that working life quality is the pattern of work which meets the need and desire of each individual based on characteristics and status of each individual, and social conditions in organization that makes work successful.

Guest (1979) suggested that working life quality was personal reaction towards their work based on their experience, feeling or attitude. For example, recognition of fair remuneration, work environment, relationship with the organization and colleagues and valuable roles in working life.

Robbins (1991) indicated that working life quality was the process that organization responds to the needs of employees from its developing mechanisms that provide employees to have an opportunity to participate in decision-making that impacts their works. The quality of working life is considered as a concept that covers all factors needed for establishing common goal which makes the organization grow as an human being as every member participates in their important activities.

Nanjundeswaraswamy and Swamy (2013) suggested that the working life quality was an essential matter for the organization that attracted and maintained skilled, knowledgeable and potential employees to survive in a competitive market in the era of free trade and globalization. The working life quality is an important impact of their work efficiency.

Nayak and Sahoo (2015) indicated that good working life quality would stimulate them to drive the organization forward. It had an influence on job satisfaction which led to their motivation at work. In addition, it raised positive attitude towards organization and improve their mental health. This helped them to have successful career path and motivates them to be a quality member of the organization. It also reduced rate of absence, turnover, accidents and led to good products and services.

Cherdchom, Janruang, and Wiroonrath (2017) suggested that the quality of working life was divided into 13 aspects. Therefore, the researcher has defined technical terms of each aspect as follows;

1. Fair wage/ salary is defined as the fact that the employees receive sufficient salary and compensation for living in accordance with generally accepted standards which is fair when compared to other jobs or organizations.
2. Appropriate fringe benefit and allowance are defined as the fact that the organization provides welfare and benefits that are appropriate and sufficient for their current living such as provident funds, accommodation, transportation, appropriate leaves, bonuses and other benefits besides wages or salaries.
3. Workplace environment is defined as both physical and psychological environment, sufficient accessibility to equipment and tools that help their operation, low-risk working conditions and a supporting policy that helps the employees feel comfortable, including works which are not harmful to life and property.
4. Training for employee potential and ability improvement are defined as the promotion for development in order to increase knowledge, operational capability by providing in-house or outsource trainings, and encourage the

employees to learn in different organizations both domestic and aboard.

5. Career improvement, growth and stability are defined that the fact that the employees are supported by their supervisors in terms of career opportunities, improvement of knowledge and ability and the opportunity to grow their career and have career stability, and the feeling that they are accepted by both colleagues and members of their family.

6. Good relationship building in organization is defined as a good relationship with supervisors and colleagues through activities that encourage employees to meet, socialize and work together as a team on various occasions with the purpose to build good relationships within the organization.

7. Fair administrative system is defined as the fact that the organization clearly determines work system structure and creates equality and fairness in administration, an organization in which the employees are appropriately treated and the supervisors listen to employees' complaints and opinions.

8. Total life space is defined as an ability to appropriately arrange their time for living, operation, personal activities, family, relaxation, providing benefits to society and communities, including stress relieving due to burden of responsibility.

9. Organizational pride is defined as the feeling of being proud to be working in the organization.

10. Job satisfaction is defined as the fact that the employees feel valuable, satisfied with the operation or various activities directly related to work, which make them feel happy and perceive the good quality of working life.

11. Leadership and authority granted to employees are defined as the management which aims at providing employees with the right to freely perform the assigned duties and opportunities

to each member to think, make decisions and take action in appropriate and efficient manner.

12. Sufficient resources for work are defined as the fact that the organization has sufficient equipment and tools to appropriately support employees' works.

13. Creativity in work is defined as the freedom in the thought process, enabling the employees to differently and initiatively think and apply such initiatives to work or create new work methods leading to different outcomes.

In conclusion, the quality of working life is the employees' satisfaction in various aspects related to working life such as wages, working hours, work environment, benefits, career progress, and positive human relations at work. All of these lead to employees' motivation and satisfaction resulting in the well-being at work and efficient and effective operation of the organization.

## Research Methodology

The research methodology on quality of working life of industrial employees in industrial estates of Rayong province is a quantitative research are as follows:

1. Population and sample: It consisted of industrial employees in industrial estates of Rayong province. As the exact number of population was unknown, the researcher estimate the populate size by formula by the estimation formula to determine appropriate sample size for data collection. The reliability level specified by researcher was  $Z\text{-score} = 1.96$  and the confidence level at 95% with error less than 5%. After calculating sample size, the minimum sample group should be composed of 384.16 samples or 384 approximately. Then, the researcher used multi-stage sampling method to select the samples; Step 1: Determine the estates to be explored by selecting the top 2 industrial estates with the highest number of factories, namely, Amata

City Industrial Estate and Eastern Seaboard Industrial Estate; Step 2: Specify the number of samples of each factory: the researcher selected 8 employees per 1 factory. Therefore, the number of factories in the sample group is 48 factories (24 factories were selected in each industrial estate); Step 3: Randomly select the factories using simple random sampling; Step 4: conduct purposive sampling to select 8 employees in each factory.

2. Tools for data collection were questionnaires, containing 2 sections, namely, 1) personal factors and 2) quality of working life with five-point Likert scale ranging from 1 which was defined as strongly disagree to 5 which was defined as strongly agree. The 13 dimensions of quality of working life were measured using 48 items developed by Cherdchom, Janruang and Wiroonrath (2017). Fair wage/ salary was measured by 3 questions such as "My salary is higher than the standard or is able compete with other organizations", etc. Appropriate fringe benefit and allowance was measured by 4 questions such as, "Your organization provides welfare for staff such as accommodation, shuttle bus, lunch", etc. Workplace environment was measured by 6 questions such as "Your workplace is clean and safe". Training for potential and ability improvement was assessed by 4 questions such as "Your organization has a plan or training program for employees", etc. Career improvement, growth and stability were measured by 5 questions such as "Your organization has a fair performance management system", etc. Good relationship building in organization was measured by 3 items such as "Your organization has recreational activities to strengthen the unity of employees within the organization". Fair administrative system was assessed by 3 questions such as "Your organization has issued rules and regulations

for employees to follow equally", etc. Total life space aspect was also assessed by 3 questions such as "Your work time and family time are balanced", etc. Organizational pride was measured by 3 questions such as "Your organization has a good reputation", etc. Job satisfaction was assessed by 4 questions such as "You have fully utilized your skills and ability to perform work", etc. Leadership and authority granted to employees was assessed by 3 questions such as "You have power and freedom to make decisions in your job", etc. Sufficient resources for work was measured by 3 questions such as "Your organization provides sufficient information to employees", etc. The final aspect of quality of working life is the creativity in work, which was assessed by 4 questions such as "You are free to create ideas and work methods", etc.

The interpretation of data from questionnaires was in accordance with interval scale of U-on (2010) detailed as follows. 4.21-5.00: extreme level; 3.41-4.20: high level; 2.61-3.40: moderate level; 1.81-2.60: low level; 1.00-1.80: very low level

3. The quality inspection of content validity was performed by specialists who considered each question in order to ensure that it covered all areas of study and was appropriate and correct in terms of information structure, and proper language terms used. If the index of Item Object Congruence: IOC of questions is over 0.50, the question was considered accepted as conformity. Then, the researcher used the questionnaires for trial with 30 samples which were similar to actual samples (Try out) in order to find reliability of the questionnaires by using calculation of internal Alpha Coefficient of Cronbach (Cronbach, 1990). The reliability of the whole content in the questionnaire was 0.96 and the value of item discrimination was 0.33-0.81 which were in accordance with values determined by

Sinjaru (2014), stating that reliability should not below 0.80 and the item discrimination of the questions should not be less than 0.30. As the questionnaires developed by the researcher passed such criteria, they were considered appropriate to be used for data collection.

4. In data analysis process, the statistical methods for general qualitative data were frequency, percentage, average ( $\bar{X}$ ), and standard deviation. For the hypotheses testing, the researcher used independent Sample t-test and analysis of variance (ANOVA). The statistical significance was determined at the level of 0.05.

## Findings

### 1. Result of analysis on quantity of personal factors in percentage

Based on analysis of personal factors in percentage, the majority of the samples was male (226) or 58.85%; aged between 20-30 years (165) or 42.97%; single (262) or 62.23%, graduated with Bachelor's degree (256) or 66.67%; having work experience between 6-10 years (105) or 27.34%; and earning monthly income between 30,001-40,000 Baht (81) or 21.09% of the total sample group.

### 2. Result of analysis on quality of working life of industrial employees in industrial estates of Rayong province

The data analysis on the quality of working life of industrial employees in Rayong were interpreted and described by average values, standard deviation, and ranking based on average value of the quality of working life as detailed in Table 1.

Table 1 Analysis results presented as average value, standard deviation, interpretation and ranks

Quality of working life	$\bar{X}$	SD	Interpretation
1. Fair wage/ salary	3.31	0.69	Moderate
2. Appropriate fringe benefit and allowance	3.17	0.65	Moderate
3. Workplace environment	3.74	0.63	High
4. Training for potential and ability improvement	3.13	0.73	Moderate
5. Career improvement, growth and stability	3.40	0.67	Moderate
6. Good relationship building in organization	3.37	0.71	Moderate
7. Fair administrative system	3.39	0.68	Moderate
8. Total life space	3.36	0.68	Moderate
9. Organizational pride	3.45	0.71	High
10. Job satisfaction	3.38	0.63	Moderate
11. Leadership and authority granted to employees	3.44	0.65	High
12. Sufficient resources for work	3.41	0.72	High
13. Creativity in work	3.44	0.67	High
<b>Total</b>	<b>3.38</b>	<b>0.50</b>	<b>Moderate</b>

From the Table 1, the average value of overall quality of working life of industrial employees in Rayong province was at 3.38 or moderate level. After ranking the aspects based on average value, it was found that workplace

environment was at high level ( $\bar{X} = 3.74$ ), followed by organizational pride which was at high level ( $\bar{X} = 3.45$ ); leadership and authority granted to employees which was at high level ( $\bar{X} = 3.44$ ); creativity in work ( $\bar{X} = 3.44$ );

sufficient resources for work ( $\bar{X} = 3.41$ ); career improvement, growth and stability ( $\bar{X} = 3.40$ ); fair administrative system ( $\bar{X} = 3.39$ ); job satisfaction ( $\bar{X} = 3.38$ ); good relationship building in organization ( $\bar{X} = 3.37$ ); total life space ( $\bar{X} = 3.36$ ); fair wage/ salary ( $\bar{X} = 3.31$ ); appropriate fringe benefit and allowance ( $\bar{X} = 3.17$ ); and training for potential and ability improvement ( $\bar{X} = 3.13$ ).

### 3. Comparison of overall quality of working life of industrial employees in industrial estates of Rayong province based on personal factors

Table 2 Result of variance analysis of overall average values based on gender

Quality of working life	Male		Female		<i>t</i>	Sig.
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
	3.42	0.51	3.35	0.47	1.277	.202

\*  $p \leq .05$

From table 2, the average values of the quality of working life of industrial employees in Rayong province based on gender revealed that, for male employees, the average value was at high level ( $\bar{X} = 3.42$ ); for female employees, the average value was at the moderate ( $\bar{X} = 3.35$ ). The average values of male and female samples were not significantly different

Table 3 Result of variance analysis of overall average values based on age range

Quality of working life	Age	$\bar{X}$		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
	1. Below 20	3.27	Between groups	2.733	4	.683	2.813	.025*
	2. 20-30	3.47						
	3. 31-40	3.30	Within groups	92.076	379	.243		
	4. 40-50	3.37						
	5. Over 50	3.53	Total	94.810	383			

\*  $p \leq .05$

From table 3, the average values of the quality of working life of industrial employees in Rayong province based on age range, showed that, for the employees of over 50 years of age, the average value was at high level ( $\bar{X} = 3.53$ ), followed by the employees of 20-30 years of age of which average value was at high level ( $\bar{X} = 3.43$ ); for those having 40-50 years of age, the average value was at moderate level ( $\bar{X} = 3.37$ ); for 31-40 years of age, the average value was at moderate level ( $\bar{X} = 3.30$ ) and for the sample group below 20 years of age, the average value was at moderate level ( $\bar{X} = 3.27$ ) respectively. After comparing average values of the quality of working life based on age range by using Analysis of variance (ANOVA), the researcher found that the average values of the quality of working life of employees were different with significance level of 0.05. Then, the researcher



conducted Post Hoc Tests by LSD method, it was found that the average values between the employees aged between 20-30 years and 31-

41 years (Sig. = 0.004); and 31-40 years and over 50 years of age (Sig. = 0.034) were different with significance level of 0.05.

Table 4 Result of variance analysis of overall average values based on marital status

	Status	$\bar{X}$		SS	df	MS	F	Sig.
<b>Quality of working life</b>	1. Single	3.39	Between groups	.883	2	.441	1.79	.168
	2. Married	3.41	Within groups	93.927	381	.247		
	3. Divorced/separated	3.07	Total	94.810	383			

\*  $p \leq .05$

From table 4, the average values of the quality of working life of industrial employees in Rayong province based on marital status revealed that, for those having married status, the average value was at high level ( $\bar{X} = 3.41$ ), followed by those having single status as the average value was at moderate level ( $\bar{X} =$

3.39); and for divorced/separated employees, the average value was at moderate level ( $\bar{X} = 3.07$ ). After comparing the data by analysis of variance (ANOVA), the average values based on marital status were not significantly different.

Table 5 Result of variance analysis results of overall average values based on educational background

	Educational background	$\bar{X}$		SS	df	MS	F	Sig.
<b>Quality of working life</b>	1. Below Bachelor's degree	3.30	Between groups	.679	2	.339	1.37	.254
	2. Bachelor's degree	3.42	Within groups	94.131	381	.247	4	
	3. Master's degree or above	3.39	Total	94.810	383			

\*  $p \leq .05$

From table 5, the average values of the quality of working life of industrial employees in Rayong province based on educational background showed that, for the employees obtaining below Bachelor's degree, the average value was at high level ( $\bar{X} = 3.42$ ), followed by those having

Master's degree or above, of which average value was at moderate level ( $\bar{X} = 3.39$ ); and for those having below bachelor's degree, the average value was at moderate level ( $\bar{X} = 3.30$ ) respectively. After comparing the data by analysis of variance (ANOVA), the average values

based on educational background were not significantly different.

Table 6 Result of variance analysis of overall average values based on work experience

	Work experience	$\bar{X}$		SS	df	MS	F	Sig.
<b>Quality of working life</b>	1. 5 yrs. or below	3.51	Between groups	6.671	5	1.334	5.722	.000*
	2. 6-10 years	3.28						
	3. 11-15 years	3.27	Within groups	88.139	378	.233		
	4. 16-20 years	3.20						
	5. 20 yrs. or above	3.54	Total	94.810	383			

\*  $p \leq .05$

From Table 6, the average values of the quality of working life of industrial employees in Rayong province based on work experience showed that, for the employees having 20 years of work experience or above, the average value was at high level ( $\bar{X} = 3.54$ ), followed by those having work experience for 5 years or below of which average value was at high level ( $\bar{X} = 3.51$ ); for those having 6-10 years of work experience, the average value was at moderate level ( $\bar{X} = 3.27$ ); and for the employees having 16-20 years of work experience, the average value was at moderate level ( $\bar{X} = 3.20$ ).

After comparing average values of the quality of working life based on work experience by using Analysis of variance (ANOVA), the researcher found that the average values of the quality of working life of employees were different with significance level of 0.05.

Then, the researcher conducted Post Hoc Tests by LSD method, it was found that the researcher found that the average values of the quality of working life of employees were different with significance level of 0.05. Then, the researcher conducted Post Hoc Tests by LSD method, it was found that the average values between the employees having experience for 5 years or below and those having 6-10 years of experience (Sig. = 0.000); between those having 11-15 years of experience (Sig. = 0.001) and 16-20 years of experience (Sig. = 0.001); and between those having 6-10 years of experience and those having 20 years of experience or above (Sig. = 0.002); between the employees of 11-15 years and 20 years of experience or above (Sig. = 0.005); and between the employees of 16-20 years and 20 years of experience or above (Sig. = 0.002) were significantly different with significance level of 0.05.

Table 7 Result of variance analysis of overall average values based on monthly income

	Monthly income	$\bar{X}$		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
<b>Quality of working life</b>	1. Below 20,000 Baht	3.36	Between groups	.569	4	.142	.572	.679
	2. 20,001-30,000 Baht	3.43	Within groups	94.241	379	.249		
	3. 30,001-40,000 Baht	3.35	Total	94.810	383			
	4. 40,001-50,000 Baht	3.38						
	5. 50,001 Baht or over	3.46						

\*  $p \leq .05$

From table 7, the average values of the quality of working life of industrial employees in Rayong province based on monthly income showed that, for the employees earning monthly income of 50,000 Baht or above, the average value was at high level ( $\bar{X} = 3.46$ ), followed by those earning monthly income of 20,001-30,000 Baht of which average value was at high level ( $\bar{X} = 3.43$ ); for those earning monthly income of 40,001-50,000 Baht, the average value was at moderate level ( $\bar{X} = 3.38$ ); for those earning monthly income below 20,000 Baht, the average value was at moderate level ( $\bar{X} = 3.36$ ); and those earning monthly income of 30,001-40,000 Baht the average value was at moderate level ( $\bar{X} = 3.35$ ).

After comparing the data by analysis of variance (ANOVA), the average values based on monthly income were not significantly different.

## Discussion

The average value of overall quality of working life of industrial employees in Rayong province was at moderate level 3.38. After considering each aspect, the researcher found that the aspect of workplace environment gaining the highest average value was consistent with the study of Maichan (2017) on factors affecting operation efficiency of employees in manufacturing machine installation industry in Songkla province, indicating that workplace environment gained

the highest average score; it proved that good workplace, sufficient equipment to facilitate their work, good working condition had a positive effect on the state of mind and emotions, which resulted in a satisfactory performance. In this study, organizational pride gained the second highest score and was at high level. It is consistent with the study of Sangphoem (2012) on quality of working life of personnel supporting the private universities in Bangkok and suburbs, finding that the average value of the organizational pride was at high level as the employees were proud of working in reputable organizations. The average score of leadership and authority granted to employees was also at high level. It is consistent with the study of Nuamchit (2015) on how leadership affects work satisfaction of employees in the Faculty of Engineering, Rajamangala University of Technology Thanyaburi, and the study of Piyaphan, Siriwong and Ueasangkhomset (2017) on how work satisfaction was correlated with the quality of working life of police officers in Metropolitan Police Bureau, suggesting that work satisfaction was positively correlated with quality of working life with significance level of 0.05. It could be assumed that, if the average value of work satisfaction increases, the quality of working life would increase as well, and it

was essential factor leading to both positive physical and mental conditions of employees. After comparing the average value of the quality of working life based on personal factors, the findings were as follows:

1. Industrial employees having different gender, marital status, educational background, and monthly income, had no difference in quality of working life. This is consistent with the study of Inthajak and Jetsadalak (2013) on quality of working life of employees affecting organization development potential of Inter Advance Food Co., Ltd. The result showed that the employees with different gender, marital status and monthly income had no difference in quality of working life. It is also consistent with the study of Neesang (2012), suggesting that the overall opinion on quality of working life of employees with different gender and monthly income was not significantly different, and the study of Arunmak, Wanthana and Wongsurawat (2017) on the quality of working life of district municipality personnel in Mueang Nakhon Pathom District, Nakhon Pathom Province, indicating that differences in gender, marital status, and educational background had no affect toward level of the quality of working life.

2. Industrial employees with different age range and work experience had difference in quality of working life. It is consistent with the study of Neesang (2012) on quality of working life of employees in operational level, finding that the employees with different age range and work experience, had different opinion on quality of working life with significance level of 0.05, also the study of Thanphan (2013) on quality of working life of employees in hotels located in Bangkok areas, indicating that the employees with different work experiences had different quality of working life with significance level of 0.05. It could be implied that when the employees

worked in an organization, they would learn about organizational cultures, gain more experiences, which resulted in different quality of working life.

## **Suggestions**

According to findings, the overall quality of working life of industrial employees in industrial estates of Rayong province was at the moderate level. Therefore, suggestions are provided in order to enhance the quality of working life, particularly in terms of fair wage/ salary, appropriate fringe benefit and allowance, and potential and ability improvement. These average value of these aspects was at moderate level and lower from other aspects.

1. Regarding fair wage/ salary, the organization should determine appropriate compensation in accordance with employee's performance level. The employees with the excellent performance deserves higher compensation than those with the lower one. This would build up motivation at work. Furthermore, due to difficult economic situation, the remuneration should be sufficient for their current living.

2. Appropriate fringe benefit and allowance of social security, medical expenses, paid leave, health and life insurance, financial support for child education, etc., could attract people to participate in the organization, and help increase employee retention allowing employees to receive both physical and mental comfort. These benefits lead to satisfaction and loyalty, and positively affect work performance as expected by the organization.

3. Regarding potential and ability improvement, learning and development are essential for employees to improve their knowledge, abilities and skills to meet expectations of the organization. The organization should promote additional study through trainings, meetings, observations, etc. Besides, there should be a career path

planning which is appropriate with their professional field and personnel development plans for employees at all levels. It should indicate necessary capabilities, including expertises according to job characteristics, and leadership criteria that are appropriate for employees of each level.

Another important factor is a development through provision of opportunities for employees to face challenging tasks, or take higher position. This is to motivate them to continuously improve their skills, knowledge and abilities, and build up their self-esteem and value of their assigned task.

## References

- Arunmak, S., Wanthana, S., & Wongsurawat, K. (2017). Quality of working life of subdistrict municipal personnel in Mueang Nakhon Pathom District, Nakhon Pathom Province. *Journal of Interdisciplinary Research: Graduate Studies*, 6(1), 52-60.
- Cherdchom, N., Janruang, S., & Wiroonrath, B. (2017). Promotion of Thai skilled labors for employment in Laos PDR. *Journal of Research and Development*, 12(2), 21-33.
- Chirawatsawong, K. (2011). *MS-QWL 1: 2008 standards of quality of working life management*. Retrieved from [http://www.thailandindustry.com/indust\\_newweb/articles\\_preview.php?cid=15513](http://www.thailandindustry.com/indust_newweb/articles_preview.php?cid=15513)
- Cronbach, L. J. (1990). *Essentials of psychological testing* (5<sup>th</sup> ed.). New York: Harper & Row.
- Guest, R. H. (1979). *Quality of work life, learning from Tarrytown*. Boston, MA: Harvard University Graduate School of Business Administration.
- Industrial Office of Rayong Province. (2016). *Development planning in Rayong Province 2018-2021*. Retrieved from <http://123.242.173.8/v2/images/2561-2564.pdf>
- Insorn, W., & Bangphan, S. (2016). Guidelines for improvement of quality of working life of industrial employees. *Industrial Technology Review*, 22(282), 103-111.
- Institute for Promotion of Occupational Safety, Health and Working Environment (PublicOrganization). (2019). *Quality of working life*. Retrieved from <https://www.tosh.or.th/index.php/blog/item/475-quality-of-working-life>
- Inthajak, N., & Jetsadalak, W. (2013). Quality of working life of employees which affects the potential of organizational development of inter advance food company limited. *Journal of Veridian E-Journal, Silpakorn University*, 6(3), 380-394.
- Maichan, A. (2017). *Factors affecting work efficiency of employees in production lines of machinery installation industry in Songkhla Province*. Master' thesis, Business Administration, Prince of Songkla University.

## Future Research

1. The future research should be on comparison of working life quality of industrial employees in the same industrial sector in order to raise working life quality to competitive level.
2. The future research of working life quality of industrial employees should be conducted through qualitative method such as interview, observation or group conversation in order to acquire in-depth information for executives to enhance employees' working life quality that meets their requirements.

- Nanjundeswaraswamy, T. S., & Swamy, D. R. (2013). Review of literature on quality of worklife. *International Journal for Quality Research*, 7(2), 201-214.
- Nayak, T., & Sahoo, C. K. (2015). Quality of work life and organizational performance: The mediating role of employee commitment. *Journal of Health Management*, 17(3), 263-273.
- Neesang, W. (2012). *Quality of working life of operational staffs of C.P. Paint Parinya Limited Partnership*. Master's thesis, Business Administration, Rajamangala University of Technology Thanyaburi.
- Nuamchit, K. (2015). *Leadership affecting job satisfaction (case study: Faculty of engineering, Rajamangala University of Technology Thanyaburi)*. Masters' thesis, Business Administration, Rajamangala University of Technology Thanyaburi.
- Piyaphan, N., Siriwong, T., & Ueasangkhomset, P. (2017). Job satisfaction and organizational conditions having relationship with quality of working life of the police officers. *Metropolitan Police Bureau. Journal of Police Nurse*, 9(2), 153-162.
- Rayong Provincial Labor Office. (2018). *Labor situation of Rayong Province in the 3<sup>rd</sup> quarter of 2018*. Retrieved from <http://rayong.mol.go.th/>
- Robbins, S. P. (1991). *Organizational behavior* (5<sup>th</sup> ed.). New Jersey: Prentice Hall.
- Sangphoem, S. (2012). *Quality of working life of personnel in private University in Bangkok and Suburbs*. Masters' thesis, Science (Applied Statistics), National Institute of Development Administration.
- Sinjaru, T. (2014). *Research and statistical analysis with SPSS and AMOS* (15<sup>th</sup> ed.). Nonthaburi: S. R. Printing Mass Products.
- Strategy and Planning, Office of the Permanent Secretary, Ministry of Labor. (2017). *Strategic plan, office of the permanent secretary (2017-2021)*. Bangkok: Text and Journal Publication.
- Thanphan, I. (2013). Quality of work life of hotel staffs in Bangkok. *Kasem Bundit Journal*, 14(2), 1-21.
- U-on, V. (2010). *Research and business data search*. Bangkok: Sripatum University.
- Walton, R. E. (1974). Improving the quality of work life. *Harvard Business Review*, 7(3), 14-16.