

## IDENTIFYING EMPLOYEE JOB SATISFACTION LEEVEL IN PUSLITBANG TEKMIRA

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**Abstract** – Pusat Penelitian dan Pengembangan Teknologi Mineral dan Batubara or better known as puslitbang tekMIRA is the government institution under the ministry of energy and mineral resources, which primarily textual although some basic tasks and functions through research and developmental activities in the field of mineral and coal. In 2014, they have 275 employees. The main research is to know the level of employee job satisfaction in the puslitbang tekMIRA. It focuses on the five facets based on Herzberg two factor theory and hierarchy of Maslow and measured by Job Descriptive Index questionnaire. The variables that be measure are, work it self, pay, promotion opportunity, supervision, and co-worker. The research used descriptive statistic and SPSS 19 to analyzed data. The result of this research shows that the level satisfaction of employee in the main office of puslitbang tekMIRA is satisfied, but still needed to be improving.

**Keywords:** employee job satisfaction, job descriptive index

### Introduction

Company's growth can be affected by two factors, external and internal. Those factors give pressure to company to develop. Before facing the external factor, company should prepare the internal factor first. One component of internal factor that company should pay attention is employees. Over time, organization needs to be more competitive in order to survive in high-pressure competition. Many successful organizations own their success not only based by great amount profit, having a latest technologies, had expansion to several countries but also they consider about their human capital as their most important asset. Employees were considered as one important element in organization and employees not only could accelerate the productivity but also the capital to the organization. Job satisfaction is an important research topic and organizational psychology. According to Warr at 2007 regards job satisfaction as one important dimension of an individual's happiness at work. Points out that job satisfaction is one component of the work-related well-being that should be included in diagnostics studies of people's well-being organizations (Rothmann, 2008).

### Literature review

Job satisfaction is the degree of pleasure an employee derives from their job (Muchinsky, 2006). Employees tend to be satisfied with their job if they are getting what they want out of it (Levy, 2006). Job satisfaction can influence one employee's decision to remain with an organization and ultimately whether to remain in that career (Knight et al ,2006).Description of job satisfaction as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences (Jex,2002 ). The appraisal involves various elements related to the job such as salary, working conditions, colleagues and boss, career prospects and, of course, the intrinsic aspects of the job itself (Arnold,et.al,1998). Job satisfaction is a concept which has a close relationship with motivation and activity. Therefore, this topic will be studied under the unit of

motivation or unit that contents motivation. The main cause for that is the assumption that workers satisfied with their jobs are more productive, effective, and in a better approach about their jobs compared with those who aren't satisfied with their jobs (Hirsowicz, 1981).

## Methodology

### Herzberg's Motivation/ Hygiene Theory (Two factors theory)

This theory was developed by Herzberg, Manusner, Peterson and Capwell who identified certain factors as satisfiers and dissatisfies. Factors such as achievement, recognition, responsibility etc, are satisfiers, the presence of which causes satisfaction but their absence does not result in dissatisfaction. On the other hand, factors such as supervision, salary, working conditions etc are dissatisfies, the absence of which causes dissatisfaction. Their presence however, does not result in job satisfaction

### Maslow's Hierarchy of Needs Theory

One theory of human motivation that has received a great deal of exposure in the past was developed by Abraham Maslow. Until the more basic needs are adequately fulfilled, a person will not strive to meet higher needs. In this theory Maslow classified human needs into five categories that ascend in a definite are: Physiological needs, Safety and security needs, Belonging and love needs, Esteem needs and Self- actualization needs.

### Job Descriptive Index Questionnaire

Job satisfaction was measured with the aid of Job Descriptive Index (JDI), developed by Smith et al (Smith, 1969). There are 72 items on this index which assess five facets of job satisfaction which includes: the work, pay, promotion opportunities, supervision, and relationships with co-workers. Each subscale is described by 18 evaluative adjectives, which is descriptive of the job, except compensation and opportunities for advancement, which consists of 9 items each. Both favourable and positively worded and unfavourable or negatively worded items are provided. Respondents are required to consider each of the items and decide whether it is applicable to them or not. The respondent mark:

"Y" if the item is applicable "T" if it is not applicable and "?" if they uncertain. The value from positive and negative are different,

(+) "Y" = 3, "T" = 1, "?" = 2

(-) "Y" = 1, "T" = 3, "?" = 2

### Data Validity

Validity can be said to be the proposition of the research result closer to the truth, or reflects the intended parameters. Validity is the measurements degree where it is achieved the purpose of the measurement being used. If a measurement is valid, it is also reliable questionnaire could be considering valid, if the question are able to reflect the characteristic of it measurement (Sarwono, 2012). Validity construct based on Pearson correlation will be used in this research.

### Data Reliability

Reliability is the consistency and stability to the outcome of the measurement results in each time measurements were conducted on the same thing, or in other words reliability is the measure of how stable, consistent, trust worthy, and dependable a test in measuring the same thing each time (Sarwono, 2012). A questionnaire could be considering as reliable is the answer of statement from one respondent consistently the same. The standard used in measuring the reliability of the questionnaire is Cronbach alpha.

## Methodology

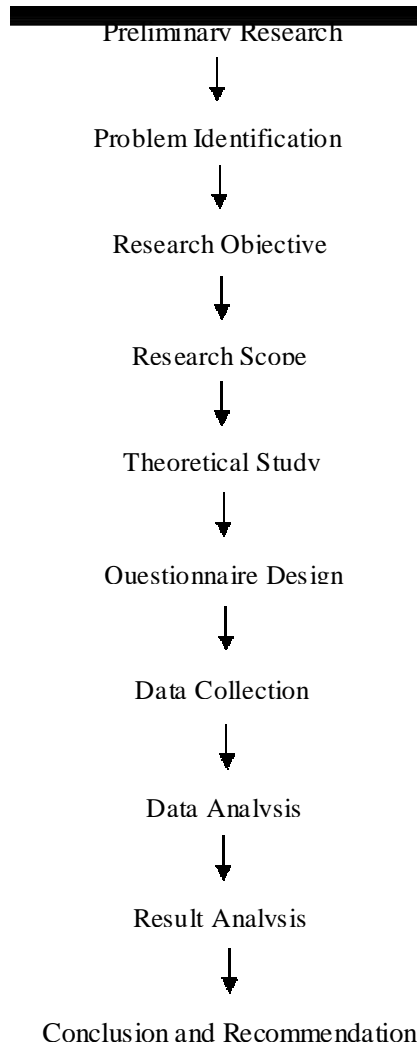


Figure 1 Methodology Framework

### Data analysis

#### Respondent's Ages

The employee's age is divided into 6 different groups. No worker that has age from 20-25 years old and 26-30 years old, 31-35 years old 3% (2 employees), 36-40 years old 15% (11 employees), 41-45 years old 28% (21 employees), and more than 46 years old 54% (40 employees). From the figure above, it shows that more than 50% the respondent's age are more than 46 years. For the civil servants employees the age upper limitation is 58 years. Therefore in the employees' who in 46 years old will be pension in the next 10 years. It becomes a critical situation for tekMIRA which force them to have a future planning to anticipate the employee turnover with try to open recruitments now on.

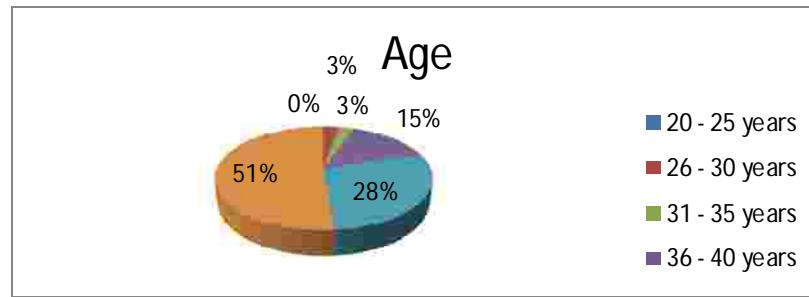


Figure 1 Age of respondents

#### Respondent's working period

The employee's working period is divided into four different groups. No worker that has work experience less than 5 years, 6-10 years 16% (12 employee), 11-20 years 28% (21 employees), and more than 20 years 56% (41 employees).

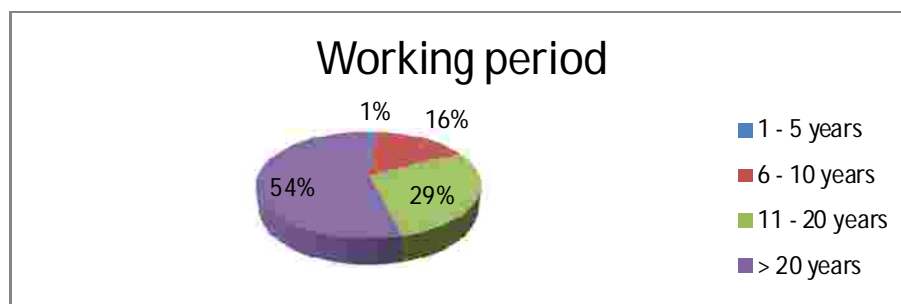


Figure 2 Working period of employee

#### Respondent's Educational Background

The employee's educational background is divided into four different groups. They are SMA/SMK/MAN 8% (6 employee), S1 70% (52 employee), S2 16% (12 employee), and S3 6% (4 employees). From the figure above it concludes that more than 50% of the tekMIRA employees have been work for more than 20 years which means those employee are expert in their own sector along by the experience. The senior employees have a responsibility to transfer the knowledge to the new trainee before their pension, or it will cause the quality loss in the next period.

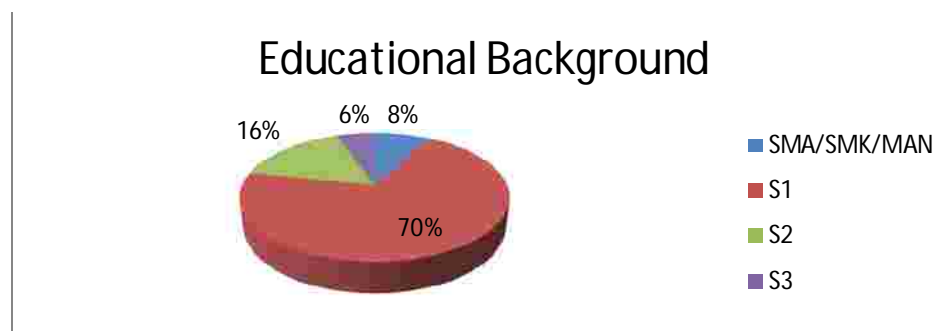


Figure 3 Educational background of employee

Descriptive statistics is used to describe the basic features of the data in a research. It provides simple summaries about the sample and the measures. Together with simple graphics analysis, it forms the basis of virtually every quantitative analysis of data. From the figure above it concludes that more than 90% of tekMIRA employees are well educated with bachelor and master degree

which is good for the company development. TekMIRA should have to manage their human resources in order to make an employee's mapping so that they could improve the employee performance.

Mean value of job

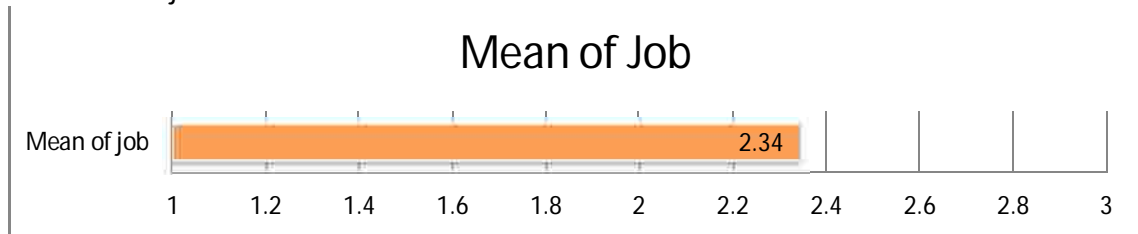


Figure 4 Mean of job

Mean value of work itself is 2.34 out of 3 which show they are satisfied. The employee feels satisfied work in puslitbang tek mira. It means that the employee can work effectively and efficiently. The challenge for the company is to provide and create the good working condition in order to keep employee motivated and give the best performance.

Mean of pay

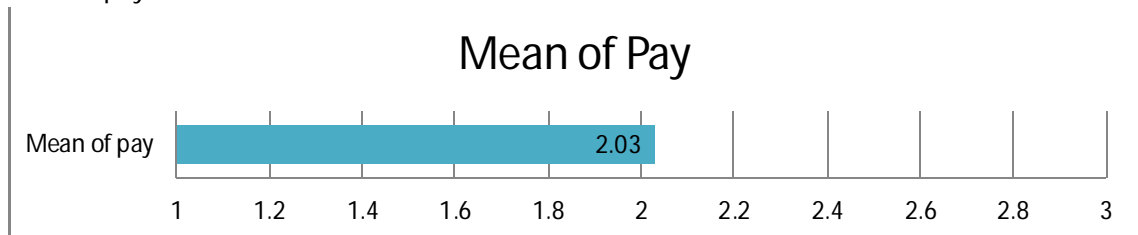


Figure 5 Mean of pay

From the figure 5 it shows that the mean of promotion opportunity is 2, 03 to 3. The overall job satisfaction mean of 2 constitutes an average level of satisfaction on these variables. But the decimal is not too high. It therefore appears that the employees of is closely neutral or not sure whether they satisfied or not with their pay.

Mean of Promotion opportunities

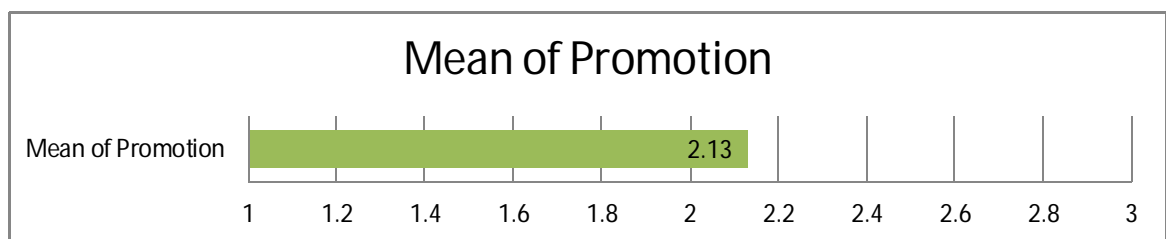


Figure 6 Mean of Promotion opportunities

Figure 6 shows that the mean of promotion is 2.13 to 3 then it means the employees feel satisfied with their promotion opportunities. The employee has the same probability to get the promotion as long as they work in an appropriate way and shows a good performance. Since there is a high standard in staff promotion this will cause a response less from the employee. They know that the entire employee has the same probability to be promoted so they just get through with it without taking the chances.

Mean of Supervision

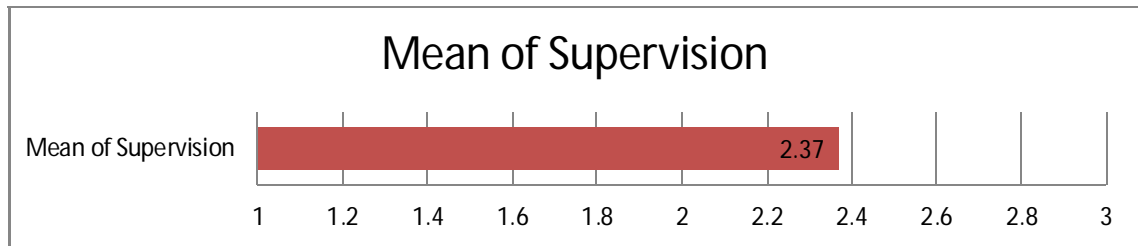


Figure 7 Mean of Supervision

Figure 7 shows that the mean of supervision is 2.37 to 3 then it means the employees feel satisfied with their supervisor. The relationship with the supervisor is important also in terms to improve the performance. Supervision should lead and give some example to do the right job.

Mean of co-worker

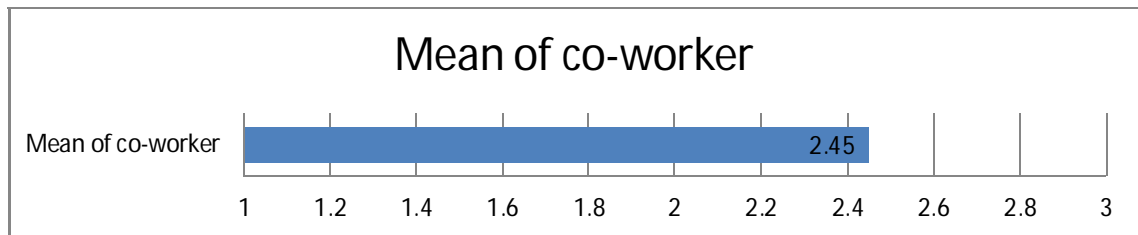


Figure 8 Mean of co-worker

Figure 8 shows that the mean of co-worker variable is 2.45 it means the employees feel satisfied with their co-worker. The employees feel comfort with their partner in their work but they are lost control about it and have too much conversation during finishing their work. The friendliness is good but the professionalism is a must.

Mean of overall job satisfaction

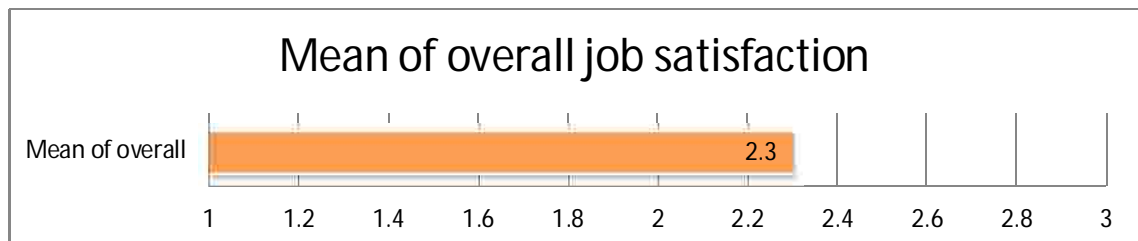


Figure 9 Mean of overall job satisfaction

Figure 9 shows that the mean of overall job satisfaction is 2 the average level of satisfaction. It means that the employees closely neutral or not sure whether they satisfied or not with their job.

## Summary analysis

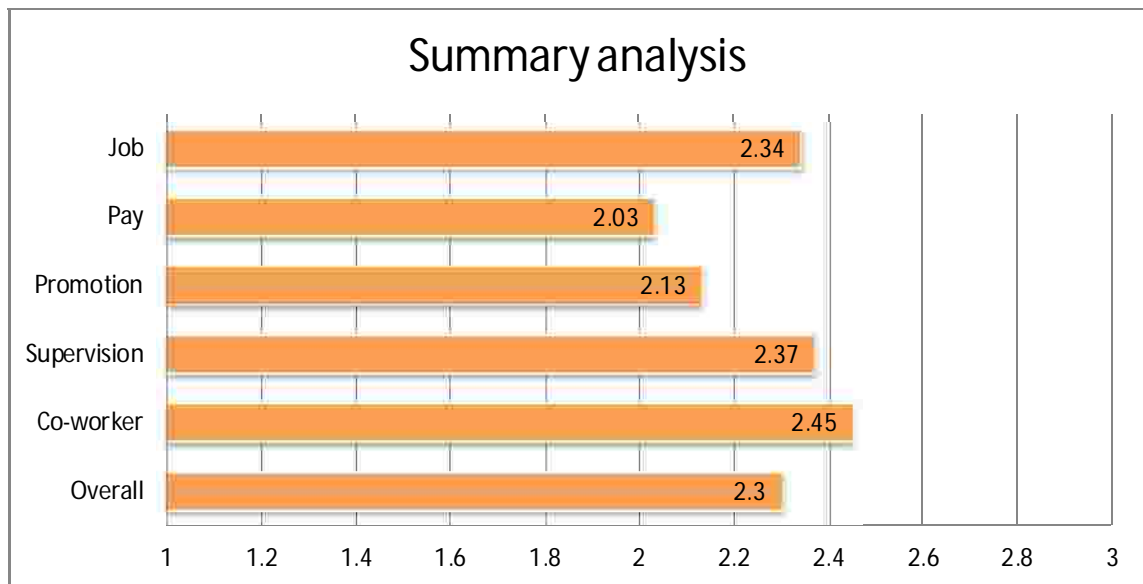


Figure 10 Summary analysis

Figure 10 shows that all variables will be concerned to be improving, since the model shows that each increasing from all independent variable can improve the level of job employee satisfaction too. All variables will be concerned to be improving, since the model shows that each increasing from all independent variable can improve the level of job employee satisfaction too. The figure above indicates that the Co-workers have the highest score influencing the job satisfaction in Puslitbang tekMIRA and it means the environment of the employee between each member will affecting the job satisfaction. While Pay becomes the lowest score in Puslitbang tekMIRA, and it indicates that the salary amount is not significantly affecting the job satisfaction in the company.

## Validity Test

To measure the validity of each statement of the questionnaire this test is using Microsoft excel with correlation function. The first step is summarizes the total of answering all statements from each respondent, and then calculated by comparing the answer of one statement from all respondent to the total answer from all respondents. The number from calculation is representing the coefficient correlation of each statement.

Table 1 Validity and result all items

| Variable | Validity value | Valid / not Valid |
|----------|----------------|-------------------|
| work 1   | 0,307          | Valid             |
| work 2   | 0,328          | Valid             |
| work 3   | 0,290          | Valid             |
| work 4   | 0,424          | Valid             |
| work 5   | 0,213          | Not valid         |
| work 6   | 0,437          | Valid             |
| work 7   | 0,252          | Not valid         |
| work 8   | 0,337          | Valid             |
| work 9   | 0,324          | Valid             |
| work 10  | 0,336          | valid             |

|                |       |           |
|----------------|-------|-----------|
| work 11        | 0,239 | Valid     |
| work 12        | 0,558 | valid     |
| work 13        | 0,377 | Valid     |
| work 14        | 0,537 | valid     |
| work 15        | 0,523 | Valid     |
| work 16        | 0,480 | valid     |
| work 17        | 0,433 | Valid     |
| work 18        | 0,525 | valid     |
| Pay 1          | 0,605 | Valid     |
| Pay 2          | 0,580 | valid     |
| Pay 3          | 0,444 | Valid     |
| Pay 4          | 0,439 | valid     |
| Pay 5          | 0,484 | Valid     |
| Pay 6          | 0,461 | valid     |
| Pay 7          | 0,481 | Valid     |
| Pay 8          | 0,419 | valid     |
| Pay 9          | 0,565 | Valid     |
| Promotion 1    | 0,412 | valid     |
| Promotion 2    | 0,308 | Valid     |
| Promotion 3    | 0,350 | valid     |
| Promotion 4    | 0,414 | Valid     |
| Promotion 5    | 0,284 | valid     |
| Promotion 6    | 0,282 | Valid     |
| Promotion 7    | 0,294 | valid     |
| Promotion 8    | 0,309 | Valid     |
| Promotion 9    | 0,312 | Valid     |
| Supervision 1  | 0,485 | valid     |
| Supervision 2  | 0,235 | Not valid |
| Supervision 3  | 0,530 | Valid     |
| Supervision 4  | 0,473 | Valid     |
| Supervision 5  | 0,441 | Valid     |
| Supervision 6  | 0,386 | Valid     |
| Supervision 7  | 0,451 | valid     |
| Supervision 8  | 0,456 | valid     |
| Supervision 9  | 0,286 | valid     |
| Supervision 10 | 0,544 | valid     |
| Supervision 11 | 0,469 | valid     |
| Supervision 12 | 0,412 | valid     |
| Supervision 13 | 0,487 | valid     |
| Supervision 14 | 0,346 | valid     |
| Supervision 15 | 0,457 | valid     |
| Supervision 16 | 0,470 | valid     |
| Supervision 17 | 0,370 | valid     |
| Supervision 18 | 0,309 | valid     |
| Co-worker 1    | 0,316 | valid     |
| Co-worker 2    | 0,377 | Valid     |



|              |       |           |
|--------------|-------|-----------|
| Co-worker 3  | 0,261 | Not valid |
| Co-worker 4  | 0,248 | Not valid |
| Co-worker 5  | 0,429 | Valid     |
| Co-worker 6  | 0,600 | Valid     |
| Co-worker 7  | 0,624 | Valid     |
| Co-worker 8  | 0,417 | Valid     |
| Co-worker 9  | 0,691 | Valid     |
| Co-worker 10 | 0,314 | Valid     |
| Co-worker 11 | 0,459 | Valid     |
| Co-worker 12 | 0,257 | Not valid |
| Co-worker 13 | 0,591 | Valid     |
| Co-worker 14 | 0,321 | Valid     |
| Co-worker 15 | 0,611 | Valid     |
| Co-worker 16 | 0,312 | Valid     |
| Co-worker 17 | 0,381 | Valid     |
| Co-worker 18 | 0,333 | Valid     |

Table 1 show that 67 items were valid then the rest of 6 items were deleted because the validity scores under 2. 7. All the 67 items were valid, while for the rest of 5 items were deleted because the validity scores under 2.7. A questionnaire can be decided as valid if the question can reveal something that will measure that questionnaire. The correlation between each indicator shows significant result, which means each question indicator, is valid.

#### Reliability Test

Table 2 Reliability Test

| Reliability Statistics |  |            |
|------------------------|--|------------|
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |
| ,708                   | ,718   | 67         |

Cronbach's alpha is a coefficient of internal consistency. It is commonly used as an estimate of the reliability of a psychometric test for a sample of examinees. Cronbach's alpha is the most common measure of internal consistency. It is commonly used when you have multiple likert questions in a survey or questionnaire that form a scale and you wish to determine if the scale is reliable. From the 74 questionnaires that being tested, but 5 items were deleted because not valid so the items that tested are 67 items. The cronbach's alpha shows result of 71,8% which means the data reliability is acceptable to determine the data. Table 2 shows reliability for independent variable. A questionnaire can be decided a reliable if someone's answer of the question is consistent or stable in all time. From the table we known that the level of reliability test for all variables are reliable

#### Conclusion

After analyzing the data, it resulted that the employee of PuslitbangtekMIRA are quite satisfied with average score 2.30 out of 3 if measured by the Job Satisfaction based on the JDI. Even though the score is 2.30 and not far from two where it means that the employees feel neutral with overall job satisfaction but from the observation the employees said that they are satisfied work in Puslitbang tekMIRA. The facilities and working environment in the main office are very ideal and can support the working activities. All variables were asked and overall they were satisfied, however for pay variables they are cannot decide if they are satisfied or not. The employees are not sure with their salary but they are very satisfied with their co-workers. This satisfaction

should be maintain and for the future should be improve Based on the data result, the job satisfaction in PuslitbangtekMIRA among the 5 factors the highest value is Co-workers factor with average score 2.45 out of 3. It means that the employees' will responses more improvingly if the relation between each employee has a various kind of level are raised. The most significant variables in Co-workers factor is item number 15 have value 2.70. It means that employees will more satisfied when they are given some responsibility to do their work in appropriate with their skills. The relation with co-worker is important as well, since they are spent most of time with another employee, their relationship could be impact to employee job satisfaction too. That's why the company should aware of a problem that might happen within co-worker which will impact to their performance. As organizations focus in customer relationship management, they should not forget that employees are also internal customers. Organizations have satisfied their customers only if they have also satisfied their employees.

### Recommendation

Based on the conclusion, the researcher gives some recommendations for puslitbang tekMIRA. All recommendation still needs further research.

- The final data has been stated above that the level of employee job satisfaction in the main office of puslitbangtekMIRA is satisfied but still needs to be improve. Test shows the result that all independent variables are significant and have positive relationship with overall job satisfaction. According to the results, the CEO should have to give attention on the factors that most affected employee job satisfaction on puslitbangtekMIRA is co-worker variable.
- Based on Maslow hierarchy of needs, pay, supervision, working condition is the 3<sup>rd</sup> lowest level. People can move to another stage if those stages have been completely.
- PuslitbangtekMIRA has homework to solve the career promotion, even though the promotion opportunity is clear, but puslitbangtekMIRA could find another way to improve employee job satisfaction by improving its rewarding system. Employees have no motivation to fill KUM because of the high standard and they already give up to complete their main tasks. TekMIRA must socialize and give trust to all of their employees whether to fill the KUM is not as difficult as they think about. By promotion, there will be a lot of benefits that the employees will get. TekMIRA must change the way of thinking of its employees by motivation training, in order to make a comprehensive thought about the promotion that there will be easiness instead of being common employees.
- Pay variable it is clearly seen that money is a good motivator, all employee work for money and to fulfil their daily needs. A good salary and a good compensation are the key factors in increasing the employee job satisfaction. Even though the base salary undetermined the company can give a good compensation for the employees. The compensation that is given can be a primary needs or secondary needs, because the obtained salary of the employees is used to fulfil the needs, so that the money that was for the needs can be allocated for the other needs, and even can be saved to the bank. Giving life insurance and education insurance are the alternatives that need to be tried.
- Generally, supervision could be as a consultant who also has a job to be a good listener of what employee needs and wants. Supervision has high authority to make decision which directly impact to the employee, that is why it is crucial and important if the supervision has a good relationship with the employee in order to keep the company's vision and mission ingoing to the next step successful. To improve work satisfaction between the employees and their supervisor, some alternatives can be done such as follows: The supervisor must act objectively. They must know how to act and behave in front of their employees, and they must see the strength of each employee and combine them in order to gain satisfaction and effectiveness together. A supervisor has to comprehend more about their job, so that when their employees in difficulties and they need help, the

supervisor can directly help those employees. In the other hand, tekMIRA employees often complain that the supervisor rarely available at the office. It means that when the supervisor left the office, they must put someone in order, so that there is someone who still can help the other employees in needs.

- The relation within co-worker, promotion opportunities, supervision, and job as important as well. Supervision and co-worker should have a good relation. Both co-worker and supervision should to know each other and can fulfilled the strength and weaknesses. If the company improving all of the variables, the value of level job satisfaction will increase too. By this, the company will probably have more chance, and the employee will not feel being pushed by their co-workers. Taking a time together like hanging out, tea time, doing sports together, are expected can maintain a good relationship between co-workers, and if this activities are done repeatedly in one division, it will harmonized the relationship between employee, and the work output can be maximized.
- Recommendation for the next researcher puslitbang tekMIRA is the dependent and independent variable which influenced employee job satisfaction can be added, changes or modified. There are many theories beside Herzberg motivation theory and Maslow hierarchy of needs. The data collection method could be managed per division and guided by their own supervisor, it is better if the employee being guide to answer the questions in order to minimize error answered.

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