CHAPTER III

RESEARCH METHODS

A. Research Subject And Object

Object research can be either a place or location of the research. The study was conducted at the RSUD dr. Abdul Aziz, Singkawang City. Subject research consists of population and research samples that are relevant to the research objectives. Population is a set of elements that are used as objects that can be used as research. The population in this study is the employee at the RSUD dr. Abdul Aziz, Singkawang City. The samples from this study are doctors, nurses, staff management, other health worker who feel the distribution of medical fees at the RSUD dr. Abdul Aziz Singkawang

B. Data Type

The type of data used in this study is primary data. The primary data through questionnaire which contain questions about intrinsic motivation, extrinsic motivation, procedural compensation in the distribution of medical services, job satisfaction and employee performance.

C. Sampling Techniques

The sampling technique used in this study is purposive sampling. The respondents are doctors, nurses, staff management, other health workers and non health workers who receive medical fee at RSUD dr. Abdul Aziz Singkawang. The purpouse is to find out how the influence of intrinsic motivation, extrinsic motivation and procedural justice compensation in the distribution of medical services to job satisfaction and employee performance.

D. Data Collection Techniques

The data in this study were collected by using a questionnaire that had been distributed and filled out by respondents of 156 people who worked in RSUD dr. Abdul Aziz, Singkawang City especially to doctors, nurses, management staff, other health workers and non health workers. The list of questions are about matters related to intrinsic motivation, extrinsic motivation and procedural justice compensation in the distribution of medical services, as well as job satisfaction and employee performance. Respondents' answers use a Likert scale which contains five levels of answers 1-5.

E. Operational Definition Of Research Variables

a. Independent Variables

Independent variables are influencing the emergence of the dependent variable. The independent variables in this study are intrinsic motivation, extrinsic motivation and procedural justice compensation in the distribution of medical services. The operational definitions of each of these variables are explained as follows:

1. Intrinsic Motivation

   Intrinsic motivation is a motivation that encourages a person to have an achievement that comes from within the individual, better known as motivational factors.

   In this study the dependent variable is Intrinsic Motivation. Extrinsic Motivation variables were measured using a questionnaire

developed by Musoli and Palupi (2018) with a 1-5 point Likert scale for 6 questions.

2. Extrinsic Motivation

   Extrinsic motivation can determine a person's behavior in which motivation comes from outside oneself which is known as hygiene factor.

   In this study the dependent variable is Extrinsic Motivation. Extrinsic Motivation variables were measured by using a questionnaire developed by Musoli and Palupi (2018) with a 1-5 point Likert scale for 7 questions.

3. Procedural Justice of Compensation in the Distribution of Medical Services

   Procedural Justice is justice that is felt by paramedics in relation to procedures or rules in policy making within the organization. In this study the dependent variable is the Procedural Justice of Compensation in the Distribution of Medical Services. The variable procedural compensation for compensation in the distribution of medical services was measured by using a questionnaire developed by Tjahjono and Atmojo (2016) with a 1-5 point Likert scale for 7 questions and other questionnaire developed by Widiastuti and Aisyah (2016) with 1-5 point likert scale for 14 questions.

b. Intervening Variables

Job satisfaction is positive emotion that comes from the assessment of a person's work or work experience. In this study the dependent variable is Job Satisfaction. Variables of Job Satisfaction were measured by using a questionnaire developed by Musoli and Palupi (2018) with a 1-5 point likert scale for 20 questions.

c. Dependent Variable

Performance (work performance) is the result of work in quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him.

In this study the dependent variable is Employee Performance. Employee Performance variables were measured by using a questionnaire developed by Musoli and Palupi (2018) with a 1-5 point Likert scale for 20 questions.

F. Quality Test Of Instruments And Data

1. Descriptive Statistics

Descriptive statistics can be used to provide a description of a data that can be seen from the values of maximum, minimum, average, sum, range and standard deviation.

2. Validity Test

Validity is a test that shows the extent to which the measuring device we use is able to measure what we want to measure and not measure the others. Validity test is tested with AMOS 24 program by looking at the

estimate output by comparing the p-value at the estimate output with alpha 5%. If the p-value is smaller than 5% then the indicator is declared valid (Ghozali, 2016).

3. Reliability Test

Reliability is a test that shows the extent to which the stability and consistency of the measuring device used, thereby providing a relatively consistent result if the measuring is repeated. Measurement of reliability is based on a numerical index called the coefficient. In data quality testing research that is often done is reliability testing for internal consistency reliability. It is said reliable if the cronbach alpha value is> 0.7 (Ghozali, 2016).

G. Hypothesis Test And Data Analysis

The data analysis in this study consisted of descriptive statistics to describe the collected data, while hypothesis testing is used to examine the effect of intrinsic motivation, extrinsic motivation and procedural compensation in the distribution of medical services by using the Structural Equation Model (SEM) through the AMOS program 24. This study uses SEM because intrinsic motivation, extrinsic motivation, procedural compensation in the distribution of medical services, job satisfaction and employee performance are latent variables, which cannot be measured directly, but can only be measured indirectly through several indicator variables by using confirmatory factor analysis.

Confirmatory factor analysis is a factor analysis technique carried out to test the hypothesis of factor loadings structure with its intercorrelation. There are 2 (two) types of factor analysis methods, namely:

1. One-level factor analysis (First-Order Confirmatory Factor Analysis)

   This analysis method consists of one latent construct with several indicators. One level measurement model can be used if the latent variables studied can be measured based on observable indicators (can be measured directly).

2. Second-Order Confirmatory Factor Analysis

   The two-level factor analysis model is the situation in which the construct is translated into several factors and each of these factors is translated back into several new factors so that there are two levels of the construct. The latent variable in this two-level factor analysis cannot be measured directly through the indicator variable. The variables to be examined are measured by several dimensions, but these dimensions are still latent (cannot be measured directly) to the variables to be studied, so that it requires several more indicators to be able to measure these variables.

In this study there are five laten constructs such as intrinsic motivation (x1), extrinsic motivation (x2), procedural compensation in the distribution of medical services (x3), job satisfaction (y1) and employee performance (y2). The five constructs can be measured directly, therefore this study uses First-Order Confirmatory Factor Analysis.

The data analysis technique uses stages of modeling and structural equation analysis into 7 steps in the book Ghozali (2016), namely:

Step 1: Model Development Based on Theory

Structural equation models focus on causal relationships where changes in a variable are considered to have an impact on changes in other variables. The strength of the causality relationship between the two variables is considered influential in the theoretical justification to support analysis rather than the analytical method.

The most critical error in developing a model based on theory is the elimination of one or more predictive variables and this problem is known as the specification error. The implication of eliminating significant variables is to bias the research on the importance of other variables.

Steps 2 and 3: Arrange the Path Diagrams and Structural Equations

The next step is to construct causality relationships with path diagrams and compile their structural equations. Structuring a model that connects latent constructs both endogenous and exogenous and composes a measurement model that connects endogenous or exogenous latent constructs with indicator variables or manifests

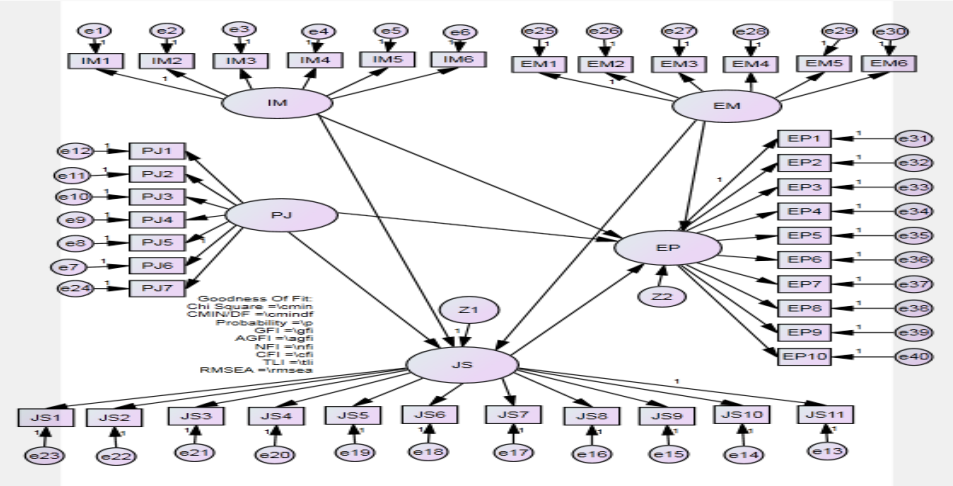

Figure 3.1
Research Model

Based on path diagram causality between constructs and indicators shown in Figure 3.1, path charts can be made into structural equations and measurement models. The structural equation of the path diagram model is stated as follows:

JS = β1 IM + β2 EM + β3 PJ + z4 …… .. (1)

EP = β1 IM + β2 EM + β3 PJ + β4 JS + z5 …… (2)

Remarks:

JS = Job Satisfaction

IM = Intrinsic Motivation

EM = Extrinsic Motivation

PJ = Procedural Justice

EP = Employee Performance

β1,2,3,4 = Constants

z4,5 = error constructs

Specifications of the measurement model of equations are as follows :

Table 3. 1

Latent Variable Equations on Exogenous and Endogenous Construct Variables

Intrinsic Motivation	
IM1: λ1 IM + e1	IM4: λ4 IM + e4
IM2: λ2 IM + e2	IM5: λ5 IM + e5
IM3: λ3 IM + e3	IM6: λ6 IM + e6
Extrinsic Motivation	
EM1: λ6 EM + e7	EM4: λ9 EM + e10
EM2: λ7 EM + e8	EM5: λ10 EM + e11
EM3: λ8 EM + e9	EM6: λ11 EM + e12
Procedural Justice	
PJ1: λ13 PJ + e13	PJ5: λ17 PJ + e17
PJ2: λ14 PJ + e14	PJ6: λ18 PJ + e18
PJ3: λ15 PJ + e15	PJ7: λ19 PJ + e19
PJ4: λ16 PJ + e16	-
Job Satisfaction	
JS1: λ20 JS + e20	JS7: λ26 JS + e26
JS2: λ21 JS + e21	JS8: λ27 JS + e27
JS3: λ22 JS + e22	JS9: λ28 JS + e28
JS4 : λ23 JS + e23	JS10: λ29 JS + e29
JS5: λ24 JS + e24	JS11: λ30 JS + e30
JS6: λ25 JS + e25	-
Employee Performance	
EP1: λ31 EP + e31	EP6: λ36 EP + e36
EP2: λ32 EP + e32	EP7: λ37 EP + e37
EP3: λ33 EP + e33	EP8: λ38 EP + e38
EP4: λ34 EP + e34	EP9: λ39 EP + e39
EP5: λ35 EP + e35	EP10: λ40 EP + e40

Based on Table 3.1 measuring a latent variable requires several indicators. In this study consists of three exogenous variables and two endogenous variables in which each exogenous and endogenous variable has a variety of question indicators. λ is the loading factor value from the indicator to the latent construct, while e as the error value. Intrinsic Motivation or IM is an exogenous variable which for measurement consists of six indicator questions with six error values. Extrinsic Motivation or EM is an exogenous variable which for measurement consists of six indicator questions with six error values. Procedural Justice or PJ is an exogenous variable which for

measurement consists of seven indicator questions with seven error values. Job Satisfaction or JS is an endogenous variable which for measurement consists of eleven indicator questions with eleven error values. Employee Performance or EP is an endogenous variable which for measurement consists of ten indicator questions with ten error values.

Step 4: Selecting the Type of Matrix Input and Estimation

Structural equation models use input data in the form of covariance or matrix correlation which are different from other multivariate techniques. In the AMOS program itself, first the raw data will be changed into the covariance matrix or correlation matrix and outlier data analysis must be carried out before calculating the correlation.

The correlation matrix in structural equation models is nothing but variant standardization or covariance. The use of correlation is suitable if the goals of study is to know the patterns that exist between these construct relationships. The coefficient obtained from the correlation matrix is always in the form of a standardized unit with the beta coefficient in the regression equation and the value ranges from - 1.0 and + 1.0.

In this study the processing was carried out with the help of the AMOS program and the chosen analysis technique was Maximum Likelihood Estimation. Sample size is very important in interpreting the results by using SEM. Sample size is the basis for estimating sampling error. The minimum Maximum Likelihood (ML) estimation model requires 100 samples. If the sample is raised above the value 100, the Maximum Likelihood method will

increase its sensitivity to detect differences between data, so it is recommended that the ML estimation method use a sample size between 100-200.

Step 5: Assessing the Identification of the Structural Model

It is often found illogical results in the estimation process where the problem has a relationship with the identification of structural models. Identification problems arise as a result of not being able to generate unique estimation. We can find out whether there is an identification problem by looking at the standard error value for one or more coefficients, estimating values such as negative error variance, inadequate programs in invert information matrix, and high correlation values> 0.90 between coefficients.

If there is an identification problem then we can see from the reciprocal influence between constructs, the amount of coefficient relative to the number of covariants and there is a small degree of freedom value, and errors in indicating the fixed value of the construct scale.

Step 6: Assessing Goodnes-of-Fit Criteria Goodness-of-Fit

It measures the suitability of the actual observation input (covariance matrix or correlation) with predictions from the proposed model (proposed model). There are tigs of goodness-of-fit measures, namely (1) absolute fit measure, (2) incremental fit meausres and (3) parsimonious fit measures.

Absolute Fit Measures:

a) Like-Ratio Chi-Square Statistics

The probability of chi square is the basic measure of overall fit. The covariance matrix or correlation observed will be different from what has

been predicted, if the chi-square value is relatively high with the degree of freedom. Then, the covariance matrix will produce a probability value (p) that is smaller than the level of significance (a), and vice versa. To get the proposed model suitable with the observation data, it must look for a non-significant chi-square value. In the AMOS 24 program, the chi-square value is \ cmin with the command probability value in the form of \ p and degree of freedom with the command \ df.

b) CMIN

It describes the difference between unrestricted sample covariance matrix and restricted covariance matrix $\sum (\partial)$ or describes the likelihood ratio test statistic which is generally stated in chi-square (x2) statistics. The statistical value is equal to (N-1) Fmin (the sample size is reduced by 1 and multiplied by the minimum fit function).

c) CMIN / DF

The chi-square value is divided by the degree of freedom and it is recommended to use this ratio in measuring fit. The Amos Program will give CMIN / DF values with the command \

d) GFI

A high Goodness of Fit Index value is known to provide a better fit and is recommended to be above 90% as a measure of good fit. The AMOS program will give the GFI value with the command \ gfi.

e) RMSEA

Root Mean Square Error of Approximation is a measure that attempts to improve the tendency of chi square statistics to reject models with large sample sizes. The RMSEA value between 0.05 and 0.08 is an acceptable measure. The results of the RMSEA empirical test are suitable for testing the strategy model with a large number of samples. The AMOS program will provide RMSEA with the company command.

Incremental Fit Measures:

a) AGFI

Adjusted goodness-of-fit is a continuation of GFI which has been adjusted by the degree of freedom ratio for the null model with the same value or> 0.90. The AMOS program will give AGFI values with the command \ agfi.

b) TLI

Tucker Lewis Index is also known as Nunnormed Fit Index (NNFI). This measure combines the size of the persimary state of the composition index between the proposed model and the null model and the TLI value ranges from 0 to 1.0. TLI value should same or> 0.90. The AMOS program will provide a TLI value with the \ tli command.

c) NFI

Normed Fit Index is a measure of the comparison between the proposed model and the null model. NFI values will vary from 0 to 1.0. The Amos program will give the NFI value with the command \ nfi.

Parsimonious Fit Measures

a) PNFI

Parsimonious Normal Index is a modification of NFI. PNFI includes the amount of degree of freedom that is used to achieve a fit value. The Amos program will generate a PNFI value with the command \ pnfi

b) PGFI

Parsimonious Goodness-of-Fit Index modifies GFI on the basis of the parsimony estimated model. PGFI values with a value of 0 to 1.0 with higher values indicate more parsimony models. The Amos program will provide PGFI values with the command \ pgfi.

Measurement Model Fit

Next is the measurement of each construct in assessing unidimensionality (assumptions underlying the calculation of reliability) and reliability of the construct. The use of Cronbach Alpha can assume the existence of unidimensionality but does not guarantee freedom from unidimensionality. Before assessing reliability, unidimensionality tests can be done first.

Measurement models can be done by measuring composite reliability and variance extracted for each construct. High reliability results have a good influence that individuals are consistent with their measurements. Reliability level <0.70 can be accepted for research that is still exploratory.

Reliability does not guarantee the existence of validity (an accurate measure of an indicator). Reliability can be measured by extracted variance as

a complement measure of construct reliability. Variance extracted can be assessed with a value> 0.50.

Step 7: Interpretation and Modification of the Model

When the model has been declared and accepted, it can be considered for modification of the model to improve the theoretical explanation (goodness of fit). The modification of the initial model must be done after being studied with many considerations. Model measurement can be done with modification indices.