









### 3 Research methods

The population is star-rated hotel employees in Koyang, registered at the Department of Environment and Employees of the Batam City Environmental Agency as many as 239 people. The researcher took the sampling technique focusing on the purposive sampling technique. According to Sugiyono (2012), Purposive sampling is a technique of determining samples with certain considerations. In addition, according to Arikunto (2010), Purposive sampling is done by taking a subject not on strata, random or regional but based on the existence of certain objectives. This technique is usually done because of several considerations, for example the reason for the limitations of time, energy, and funds so that they do not take large and far samples. Based on Ridwan and Akdon (2009), how to calculate samples using Slovin formula are as follows:

$$n = \left( \frac{N}{1 + (N \cdot d^2)} \right)$$

in which n = number of samples; d = error limit used 5%; N = Sample size

The total population in this study were environmental management employees at star-rated hotels registered with the Batam City Environmental Agency as many as 239 employees.

$$n = \left( \frac{N}{1 + (N \cdot d^2)} \right) = \left( \frac{239}{1 + (239 \cdot 0,05^2)} \right)$$

$$= 149,60 \approx 150$$

The technique of collecting data to obtain primary data is done by giving a questionnaire to environmental management staff regarding work ability, leadership, compensation, and to leaders or managers regarding motivation in Star Hotels - Batam City. The scale used in the measurement scale of research instruments on work ability (X1), leadership (X2), compensation (X3), and motivation (y) and performance (Z) is using the Likert scale from 1 (strongly disagree) to 5 (strongly agree). The data analysis technique in this study uses path analysis. The regression equation is:

$$Z = H_1 \cdot X_1 + H_2 \cdot X_2 + H_3 \cdot X_3 + e_1 \dots \dots \dots (1)$$

$$Y = H_5 \cdot X_1 + H_6 \cdot X_2 + H_7 \cdot X_3 + H_4 \cdot Z + e_2 \dots (2)$$

### 4 Results

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#### 4.1 The profiles of respondents

Most respondents were in the productive age range of 35-45 years as many as 75 people or 50%, followed by respondents with a age range of 25-35 years as many as 60 people or 40%. From the aspect of education, most of the respondents were high school graduates as many as 105 people (70%), followed by respondents graduating from the diploma program as many as 28 people (19%), and undergraduates as many as 17 people (11%). In terms of experience, the majority of respondents have worked more than 3 years as many as 83 people (55%). For WWTP ownership, the comparison between the number of hotels with WWTP ownership and those that do not is 72 compared to 78 with no WWTP or 52%: 48%.

**Table 1.** Respondent Profiles and Facilities of the Wastewater Treatment Plant

Age			Education			Experience		WWTP ownership	
25-35	36-45	46-55	High school	Diploma	Undergraduate	<3 years	>3 years	yes	No
60	75	15	105	28	17	67	83	72	78
40%	50%	10%	70%	19%	11%	45%	55%	48%	52%

#### 4.2 Evaluation of Goodness of Fit

In accordance with the purpose of the study to find out and explain the Ability of Work, Leadership, Compensation, Motivation, and Performance. Performance as determination through Motivation in Environmental Management Staff In starred hotels

coupled with hypotheses that have been formulated, the data analysis is done using the Structural Equation Modeling (SEM) which is a statistical engineering analysis that allows testing of a series of relative relationships. simultaneously (Ferdinand, in Adi, 2008: 55).

**Table 2.** Evaluation of Modified Goodness of Fit (Model Revision)

Index	Cut-off-value	Results	Verification
Chi-square ( $X^2$ )	Small	283.473	Very good
Relative chi-square ( $X^2/df$ )	$\leq 3.00$	1.143	Very good
Probability	$>0.05$	0.060	Good
RMSEA	$\leq 0.08$	0.031	Very good
GFI	$\geq 0.90$	0.879	Good
AGFI	$\geq 0.90$	0.842	Good
TLI	$\geq 0.94$	0.948	Very good
CFI	$>0.94$	0.957	Very good

From Table 2, it can be seen that the overall model shows a good level of conformity. Thus it can be said that the results of testing the goodness of fit on the standard model used in this study indicate that the observed data is appropriate or consistent with the theory or model to be tested. Although AGFI is considered good but can still meet the requirements, so the proposed model is considered very good and can be accepted as an appropriate model in this study.

0.50, the value of  $CR > t\text{-table} = 1.96$ , and probability ( $P < 0.05$ ), then the parameter loading factor ( $\lambda$ ) is stated significant (Ferdinand, 2008: 225). This means, the indicator is valid. For the purposes of testing the parameters ( $\lambda$ ), the following table is shown which contains loading factors ( $\lambda$ ), C.R, probability (P).

**Table 3.** Regression Weights

Hypotheses	Estimate	S.E	C.R	p
MOT $\leftarrow$ WORK	.635	.120	2.657	.021
MOT $\leftarrow$ COMP	.746	.136	3.273	.001
MOT $\leftarrow$ LDR	.595	.079	2.334	.035
PERF $\leftarrow$ MOT	.620	.096	2.419	.025
PERF $\leftarrow$ LDR	.782	.168	2.555	.019
PERF $\leftarrow$ WORK	.954	.318	3.609	.002
PERF $\leftarrow$ COMP	.853	.296	2.881	.004

Note: MOT=motivation; WORK= work ability; COMP: compensation; LDR=leadership; PERF=performance

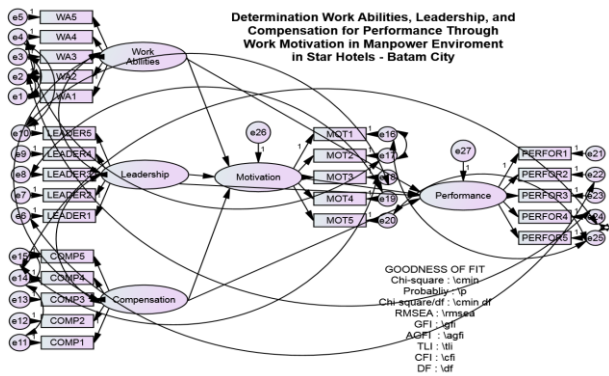


Figure 2. Comprehensive SEM model (after modifying the index)

**4.3 Regression Weights**

Further analysis of regression weights requires that if the standardized estimate (regression weight)  $>$

From Tables 3, it can be seen that all indicators of latent variables have standardized estimate (regression weight) in the form of loading factor or  $\lambda > 0.50$ , critical value  $CR > 1.96$  and have probabilities smaller than 0, 05. Thus, it can be said that all indicators of the latent variable are valid or significant.

**Table 4.** Recapitulation of direct effect and indirect effect parameter values

Hypotheses	Direct Effect			Indirect effect		
	Standardized Estimate	C.R	p	Standardized Estimate	C.R	p
MOT $\leftarrow$ WORK	.635	2.657	.021			
MOT $\leftarrow$ COMP	.746	3.273	.001			
MOT $\leftarrow$ LDR	.595	2.334	.035			
PERF $\leftarrow$ MOT	.620	2.419	.025			
PERF $\leftarrow$ LDR	.782	2.555	.019	0.056	2.555	.019
PERF $\leftarrow$ WORK	.954	3.609	.002	0.020	3.609	.002
PERF $\leftarrow$ COMP	.853	2.881	.004	0.007	2.881	.004

In the hypothesis 1 test, there is a positive and significant effect of work ability on motivation, providing information is acceptable, because the CR value of the relationship between the two variables is 2.657 with a p value of 0.021, so that it is considered fulfilling the requirements which are still above 1.96 for CR and below 0.05 for p value. In addition, both of these variables have direct effect of 0.635. Leaders are unable to inspire what their subordinates expect so that there is no motivation, and leaders lack democracy towards their subordinates. Further analysis show that there is a positive and significant effect of work ability on performance, providing information is acceptable, because the CR value of the relationship between the two variables is 3.609 with a p value of 0.002, so that it is considered to be qualified above 1.96 for CR and below 0.05 for the p value, it can be seen that the P and CR values meet the requirements. Both of these variables have a direct effect of 0.954. Besides that, there is an indirect effect of 0.040 which reflects an indirect influence. The ability to work that is not in their field or according to their expertise, will decrease the performance of environmental management staff. This is caused by difficulty in adapting and of understanding work. Work ability will be reduced due to lack of knowledge so that skills have a negative impact on performance. Thus, it is better for someone who is truly capable in his field.

In the hypothesis 3 test, there is a positive and significant effect of leadership on motivation, providing information is acceptable, because the CR value of the relationship between the two variables is 2,334 with a p value of 0,035. Besides that, both of these variables have a direct effect of 0.595. Thus, that the development in the leader, the initiative to reward environmental management staff will be able to provide positive motivation. The leader can inspire from what is expected by his subordinates so that motivation appears, and especially for leaders who are democratic towards their subordinates. The statistical testing of the hypothesis 7 shows that there is a positive and significant effect of leadership on performance, providing information is acceptable, because the CR value of the relationship between the two variables is 2.555 with a p value of 0.019, which is considered to be above 1.96 for CR and in under 0.05 for the p value. Both of these variables have a direct effect of 0.782. Besides that, there is an indirect effect of 0.011 which reflects an indirect influence. From leadership, it can be seen that it can have a significant effect on performance. This is due to several factors, including that leaders must be able

to provide good, or inspiring examples, so that the performance of environmental management staff is better.

In the hypothesis 5 test, there is a positive and significant effect of compensation on motivation, providing information can be received, because the value of the CR relationship between the two variables is 3.273 with a p value of 0.001. In addition, both of these variables have a direct effect of 0.746. Compensation went well and environmental management staff needs were fulfilled so that it began to increase motivation within environmental management staff. In addition, creating healthy competition so that employees who excel and get greater awards will motivate environmental management staff. In the hypothesis 6 test, there is a positive and significant effect of compensation on performance, providing information is acceptable, because the CR value of the relationship between the two variables is 2.881 with a p value of 0.004. Both of these variables have a direct effect of 0.853. Besides that, there is an indirect effect of 0.053 which reflects an indirect influence. It can be seen from the significance that the compensation for environmental management staff has an impact on better performance. This will cause environmental management staff to have original thinking skills and own initiatives to analyze, give reasons, get conclusions, and make decisions to resolve the problems it faces.

In the hypothesis 7 test, there is a positive and significant influence on motivation on performance, providing information is acceptable, because the CR value of the relationship between the two variables is 2.419 with a p value of 0.025. Besides that, both of these variables have a direct effect of 0.620. From motivation, it can be seen that it can significantly affect performance. This is due to several factors, including: employees like to work, are responsible for work, and cooperate between good employees.

In the hypothesis 8 test, the formulation produced from the standard regression weight is:

In the hypothesis 8 test, the formulation produced from the standard regression weight is:

$$Y = 0.547X_1 + 0.500X_2 + 0.632X_3$$

$$Z = 0.818X_1 + 0.642X_2 + 0.628X_3$$

While the results of the coefficient determination appear to be the magnitude of the effect together on motivation (Y) is 63.8%, which is based on the contribution of three variables namely work ability,

leadership and compensation, while performance (Z) is 71%, based on the contribution of 3 variables namely motivation, work ability, and compensation.

## 5 Conclusion

This study aims to analyze with SEM on a number of independent variables of work ability, leadership, compensation, on the performance, through the mediating effect of motivation in starred hotel taking the object of environmental assessment criteria. The findings show that performance are influenced by ability to work, leadership, compensation, motivation. From the overall data analysis can be concluded all indicators for ability to work, leadership, compensation, motivation and performance are valid or significant. In this context, the hotel leader should provide a policy on environmental management that can increase the motivation of environmental management staff in working by providing the wastewater treatment plant and adequate funding for its operations. To the City Environment Agency, it is encourage to routinely carry out supervision as an effort to push so that the motivation of the environmental management staff and the policies of the hotel leaders will increase.

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