

## Influence of Leadership, Motivation, Competence, Commitment and Culture on ISO 9001:2015 Performance in Packaging Industry

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### Abstract

### Original Research Article

The purpose of this study is to analyze the influence of leadership, motivation, competence, commitment, and organizational culture on the implementation performance of the ISO 9001: 2015 quality management system at a food packaging manufacturing industry. The study sample as population is all 300 employees of packaging industry. The analysis of this study uses SEM (Structural Equation Model) with LISREL software program version 8.70. The results show that leadership and organizational culture have significant influence on the implementation performance of the ISO 9001: 2015 quality management system, while motivation, competence and commitment do not affect the implementation performance of the ISO 9001: 2015 quality management system.

**Keywords:** influence of leadership, motivation, quality management system, LISREL software program.

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## INTRODUCTION

ISO 9001 quality management system is a standard that contains requirements to help companies or organizations to be more effective and efficient and customer satisfaction increases. Companies must meet the requirements contained in ISO 9001 and implement them, and maintain the system that has been applied so that these requirements can be met continuously. In 2013 more than one million companies from 187 countries in the world carried out ISO 9001 certification, and there are still many other companies and organizations that use this standard without having a certificate [1].

Edwin and Marnis [2] in their research found that there was a significant positive influence between leadership on the performance of this study reinforced by Indriyati [3] who found that leadership had a positive and significant effect on performance. Rego, Supartha and Yasa [4] also proved that leadership has a positive and significant effect on employee performance. Andari [5] also examined and found that leadership has a significant effect on employee performance. Edwin and Marnis [2] in their research found that there was a significant influence between motivation on performance. This study is strengthened by Rego, Supartha and Yasa [4] proving that motivation has a positive and significant effect on employee performance. Indriyati [3] in her study concluded that

commitment has a positive and significant effect on performance and his research concluded that organizational culture has a positive and significant effect on performance.

Fsar and Umrani [6] and R. Wahyuniardi, H. R. Nababan [11] conducted a study and concluded that transformational leadership has a positive effect on innovative work behavior, Bednall [7], Farahnak [8] transformational leadership has an effect on performance, Ma and Jiang [9], Naguib and Naem [10] transformational leadership and transactional leadership influences performance.

PT. CPA is a food packaging manufacturing company and is one of the companies that has implemented ISO 9001: 2015 every 6 months is held an internal quality audit and once a year an external quality audit to see the consistency of the implementation of the quality management system which is the basic principle in implementing the system quality management. The results of the external audit serve as a benchmark for ISO certification bodies to provide recommendations on certifications owned by companies.

The implementation of ISO 9001: 2015 Quality Management System in the manufacturing industry is the right step to win the competition. One of

the companies in Indonesia that has been ISO 9001: 2015 certified is PT CPA. The company is engaged in manufacturing food packaging and has been implementing these standards for 10 years. One of the benchmarks of ISO 9001 quality management system performance is the number of audit findings. During the last 2 years the number of internal and external audit findings has increased and also some quality targets have not been achieved. The number of internal audit findings in 2018 was 21 findings and in 2017 there were 15 findings while the number of external audit findings in 2017 was 13 and in 2018 there were 11 findings. Therefore it will be analyzed the factors that cause the performance of the quality management system at PT CPA which is not optimal from the variables of leadership, motivation, competence, commitment and work culture.

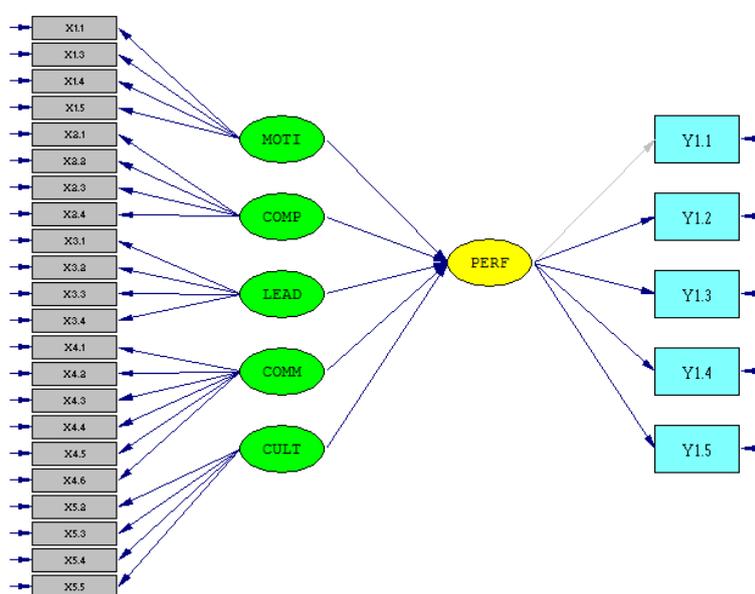
### The objectives of this research are:

- Test and analyze the effect of leadership on performance at PT. CPA.
- Test and analyze the effect of motivation on performance that occurs at this time in PT. CPA
- Test and analyze the effect of competence on performance that occurs at this time in PT. CPA
- Test and analyze the effect of commitment on performance that is happening right now at PT. CPA
- Test and analyze the influence of organizational culture on performance that occurs at this time in PT. CPA

### Research Methods

#### Research Design and Hypothesis

Based on the results of previous studies and supported by theories that have been put forward, a research concept framework is obtained as follows:



**Fig-1: Model of Research**

Note: The Figure-1 is derived from the output of the Lisrel program (authors, 2019)

**Based on the research hypothesis model that has been made above, the following research hypotheses are formulated:**

1. Hypothesis 1: Leadership has a significant and positive effect on the performance of the application of ISO 9001: 2015.
2. Hypothesis 2: Motivation has a significant and positive effect on the performance of the application of ISO 9001: 2015.
3. Hypothesis 3: Competence has a significant and positive effect on the performance of the application of ISO 9001: 2015.
4. Hypothesis 4: Commitment has a significant and positive effect on the performance of the application of ISO 9001: 2015.
5. Hypothesis 5: Organizational culture has a significant and positive effect on the

performance of the application of ISO 9001: 2015.

**Based on the proposed hypothesis, the variables that will be used in this study are divided into:**

1. Dependent Variables that is variables whose value is influenced by independent variables. In this study the dependent variable is performance (Y).
2. Independent variable is a variable that can affect changes in the dependent variable and has a positive or negative relationship for other dependent variables. In this study there are 5 independent variables: motivation (X1), competence (X2), leadership (X3), commitment (X4) and organizational culture (X5).

**Method of Collecting Data**

This research was conducted at PT CPA a food manufacturing industry located in Tangerang and as the subject of this study were employees of PT. CPA. The object of this research is leadership, competence, commitment, motivation, organizational culture and its impact on performance.

The population in this study were employees of PT. CPA which amounts 300 people.

**Table-1: The State of Respondents According to Their Level of Education**

No	Education	Amount	Percent
1	SMK	164	54.67%
2	D3	76	25.33%
3	S1	54	18.00%
4	S2	6	2.00%
Amount		300	100.00%

Source: Internal Data Processed

**Table-2: The State of Respondents According to Tenure**

No	Tenure (Year)	Amount	Percent
1	0 - 5	114	38.00%
2	6 - 10	125	41.67%
3	11 - 15	45	15.00%
4	16 - 20	16	5.33%
Amount		300	100.00%

Source: Internal Data Processed

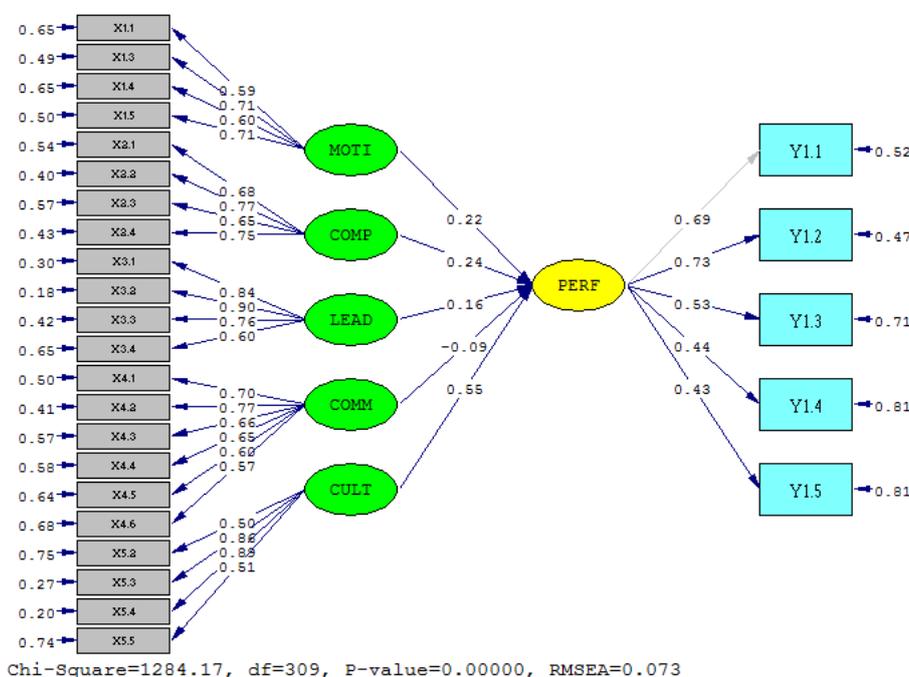
**Table-3: The State of Respondents According to Section**

No	Section	Amount	Percent
1	Production	159	53.00%
2	Warehouse	65	21.67%
3	Quality Control	49	16.33%
4	Office	27	9.00%
Amount		300	100.00%

Source: Internal Data Processed

**RESULTS AND DISCUSSION**

The first step is to create a syntax program on LISREL software after that the program is run to get the loading factor of each indicator and variable and to determine the t-value of each variable. Data analysis is done by Structural Equation Model (SEM) using a Linear Structural Model (LISREL) version 8.70 of Joreskog and Sorbom (2008), and the results are in the following image:



**Fig-2: Loading factor Value Indicator**

Note: The Figure comes from the output of the Lisrel program processing (authors, 2019)

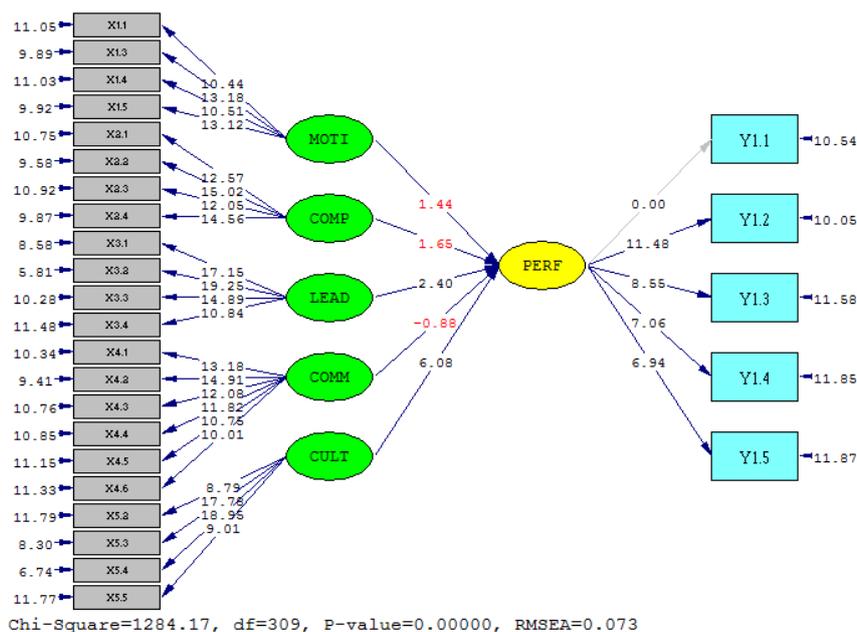


Fig-3: t-Value Indicator

Note: The Figure comes from the output of the Lisrel program processing (authors, 2019)

Based on Figure 2 & 3 is concluded that no error variance negative value, and the value of the indicator above the loading factor of 0.5 (> 0.5) and for value loading factor <0.5 will be issued. The entire value of t which to test the significance of the value of the loading factor of greater than 1.96 (> 1.96). It is that

all valid and significant indicator. Then the results of the output lisrell of each indicator and loading factor are summarized in the table for analysis of validity and reliability ummary of the results of the analysis can be seen in the following table:

Table-4: Results of Indicators CFA Construct Validity

Variable	Indicator	Loading Factor	T-Value	Remark
<b>MOTIVATION (X1)</b>	X1.1	0.59	10.44	Valid & Significant
	X1.3	0.71	13.18	Valid & Significant
	X1.4	0.60	10.51	Valid & Significant
	X1.5	0.71	13.12	Valid & Significant
<b>COMPETENCE (X2)</b>	X2.1	0.68	12.57	Valid & Significant
	X2.2	0.77	15.02	Valid & Significant
	X2.3	0.65	12.05	Valid & Significant
	X2.4	0.75	14.56	Valid & Significant
<b>LEADERSHIP (X3)</b>	X3.1	0.84	17.15	Valid & Significant
	X3.2	0.90	19.25	Valid & Significant
	X3.3	0.76	14.89	Valid & Significant
	X3.4	0.60	10.84	Valid & Significant
<b>COMMITMENT (X4)</b>	X4.1	0.70	13.18	Valid & Significant
	X4.2	0.77	14.91	Valid & Significant
	X4.3	0.66	12.08	Valid & Significant
	X4.4	0.65	11.82	Valid & Significant
	X4.5	0.68	10.75	Valid & Significant
	X4.6	0.57	10.01	Valid & Significant
<b>CULTURE (X5)</b>	X5.2	0.50	8.79	Valid & Significant
	X5.3	0.86	17.78	Valid & Significant
	X5.4	0.89	18.95	Valid & Significant
	X5.5	0.51	9.01	Valid & Significant
<b>PERFORMANCE (Y)</b>	Y1.2	0.73	11.48	Valid & Significant
	Y1.3	0.53	8.55	Valid & Significant
	Y1.4	0.64	7.06	Valid & Significant
	Y1.5	0.62	6.94	Valid & Significant

Based on the above test results showed that the value of the loading factor is obtained entirely above 0.5 (> 0.5), and all the t-value obtained is more significant than 1.96 (> 1.96). Because of that the model meets the convergent validity requirements. Besides looking at the loading factor value of each indicator, convergent validity is also assessed from the VE value of each construct, the LISREL model is declared to have met the convergent validity if the VE value of each construct is > 0.5. The CR and VE value of each construct can be seen in the following table:

**Table-5: CR and VE Value**

Variable	CR	VE
Work Culture	0.80	0.60
Leadership	0.79	0.54
Performance	0.78	0.54
Commitment	0.81	0.62
Competence	0.79	0.60
Motivation	0.76	0.59

Source: Internal Data Processed

Based on the results of the data analysis in the table above, the value of CR and VE for all constructs both in the form of dimensions and variables has exceeded 0.7 (for CR) and 0.5 (for VE), which indicates that all indicators in each construct have met the required convergent validity criteria. Therefore, based on the results of the analysis of the reliability calculation can be concluded that the reliability of the whole is a good indicator and conclude that the research meets the requirements of all phases of testing. The next step is to carry out the Analysis of Goodness of Fit (GOF), GOF data obtained from the results of the software execution.

**Analysis Goodness of Fit (GOF)**

Test the suitability of the model in the overall model fit about the analysis of statistical GOF value generated by the program LISREL, for the relevance of the model (model fit) are good enough and for its model fit the criteria as shown in Table-6.

**Table-6: Goodness of Fit**

Fit Indices	Value	Value Standard	Remark
Chi-Square	1284.17	>0.5	Fit
Root Mean Square Error of Approximation (RMSEA)	0.073	<0.08	Fit
Normed Fit Index (NFI)	0.92	>0.90	Fit
Non-Normed Fit Index (NNFI)	0.94	>0.90	Fit
Comparative Fit Index (CFI)	0.94	>0.90	Fit
Incremental Fit Index (IFI)	0.94	>0.90	Fit
Relative Fit Index (RFI)	0.91	>0.90	Fit

Note: Table comes from the output of the Lisrel program processing (authors, 2019)

Based on the results of the analysis above can be seen that all fit indices stated that the model fit. These results indicate that the variable is declared valid and reliable so that it can be concluded that the overall

model is still a good match. Model equation (Structural Equations) linear from LISREL 8.70 software obtained as follows:

Structural Equations						
PERF = 0.22*MOTI + 0.24*COMP + 0.16*LEAD - 0.087*COMM + 0.55*CULT, Errorvar.=						
0.098, R <sup>2</sup> = 0.90						
(0.15)	(0.15)	(0.065)	(0.098)	(0.091)	(0.047)	
1.44	1.65	2.40	-0.88	6.08	2.09	

**Fig-4: Structural Equations**

Note: The Figure comes from the output of the Lisrel program processing (authors, 2019)

**Based on the hypothesis testing results above, the following test results are obtained:**

- The t-value of the influence of work culture on performance is 6.08 and a positive path coefficient of 0.55. Because the t-value obtained > 1.96 and the positive path coefficient, Ho is rejected and concluded that work culture has a positive and significant effect on performance, the better work culture, the better performance of employees, and vice versa.
- The t-value of leadership influence on performance is 2.40 and a positive path coefficient is 0.16. Because the t-value obtained > 1.96 and the

positive path coefficient, Ho is rejected and concluded that leadership has a positive and significant effect on performance, the higher leadership then the employee's performance increases, and vice versa.

- The t-value of the effect of motivation to performance is 1.44, competence on performance is 1.65, and commitment on performance is -0.88. All of t-value of the variables <1.96. Because of that Ho is not rejected and it is concluded that motivation, competence and commitment have no effect on employee performance.

## CONCLUSION

Based on research results and data analysis results, it can be concluded that leadership has a positive effect on the performance of the implementation of ISO 9001: 2015 in food packaging manufacturing companies, the greater influence of leadership the greater performance of the application of ISO 9001: 2015. Work culture has a positive effect on the performance of the application of ISO 9001: 2015 in food packaging manufacturing companies, the higher work culture at all levels of management, the higher performance of the implementation of ISO 9001: 2015. Human resource motivation, competence and commitment have not affect the performance of the implementation of ISO 9001: 2015 in food packaging manufacturing companies. This study has limitations which is the object of research is only one company location. It is recommended for future researchers to conduct research by expanding variables and looking for other variables to get more accurate research results and this research method can also be done in other companies.

## LIMITATION

This study maybe has some limitations, the sample not representative of the target population, the number of samples use that are not much due to limited time and cost, the object of this study is only in the food industry companies even though more other companies have implemented Food Management System ISO 22000. The research study was only limited to company in Tangerang and the result of questionnaire may not be the same when applied to other place.

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