

# The Influence of Internal Audit on the Implementation of the Principles of Good Corporate Governance and the implications for Managerial Performance (A survey of three State-Owned Strategic Industries in Bandung)

Syafdinal\*, Rizki Nugraha, Riesma Putri Dinanti, Budhiana Try Nursolih, Rega Maya Witari

Department Accounting, Widyatama University, Bandung, Indonesia

\*Syafdinal.mm@widyatama.ac.id

**Abstract-** The purpose of this research is to examine the effect of internal audit on the application of principles good corporate governance (GCG) and its implications for managerial performance. By implementing GCG, it will encourage better managerial performance. Internal audit has a role to ensure the implementation of GCG principles. Independence and objectivity, auditor competence, quality and ethics assurance programs and improvement of quality and ethics are significant influences on the implementation of GCG principles. This research is an explanatory research. Data were collected using a survey method using a questionnaire to 182 respondents. Hypothesis testing using SEM analysis. The results of calculations carried out using the LISREL program. Based on the calculation results obtained the calculated F value of 62.66. This value will be compared with the F table value with a sample size of 182 obtained F table of 2.27. Thus,  $F_{count} > F_{table}$ , which means independence and objectivity, competence of internal auditors, assurance program and ethics simultaneously affect GCG and its implications for managerial performance.

**Keywords:** *Internal Audit, Good Corporate Governance Principles, Managerial Performance.*

## I. INTRODUCTION

Managerial performance is the ability or achievement of a manager that has been achieved in carrying out a certain action. Performance appraisal can be used as feedback on the results of the manager's work for the responsibilities assigned to him. Theoretically, poor managerial performance cannot be separated from the low implementation of Good Corporate Governance (GCG). As in the case of PT. Dirgantara Indonesia which has been sticking out recently. KPK enters into PT Dirgantara Indonesia Work Contract with Partners (<https://news.detik.com/berita/d-5055190/kpk-pCall-3-pejabat-pt-di-jadi-saksi-kasus-dugaan-korupsi>). This is the impact of the lack of GCG and the lack of the role of internal audit at PT. Indonesian Aerospace.

Audit is one of the important roles in the running of the company, including internal audit. A good internal audit will create a good company, but if the internal audit is bad then the company's performance will also be bad. Because the existence of an internal audit that is carried out continuously will prevent the company from fraud and fraud. Independence and objectivity, auditors' competence, quality and ethics assurance programs and improvement are significant influences on the implementation of GCG principles.

Good GCG are the principles that underlie a company management process and mechanism based on the prevailing laws and standards. Making the company have good GCG does not escape the good quality of managerial performance and internal audit within the company. Internal auditors, as one of the professions that support the realization of GCG, have now developed into a major component in realizing healthy company management. A company is said to be successful in implementing GCG if it has implemented good GCG principles, namely transparency, accountability, responsibility, independency, and fairness and equality.

## **II. LITERATURE REVIEW**

### **2.1. Theoretical basis**

#### **2.1.1. Internal Audit**

According to Sukrisno Agoes (2012), the definition of internal audit is as follows:

“Internal audit is an independent and objective assurance and consulting activity, which is designed to add value and improve the organization's operations. Internal audit helps the organization achieve its objectives, through a systematic and orderly approach to evaluate and improve the effectiveness of risk management, control and governance processes. ”

Thus, the definition of internal audit is a function that provides objective and independent assurance by examining and evaluating various activities carried out by the company in order to run effectively, efficiently and economically. All individual internal auditors are responsible for complying with the relevant Standards in terms of; objectivity, skill, due professional care and related Standards.

#### **2.1.2 Independence and objectivity**

Independence means an attitude that is free from influence, cannot be controlled by other parties, is not dependent on others. Independence also means honesty in considering facts and impartiality in formulating and expressing opinions

Independence indicators are measured as follows: (1) Independence in the audit program; (2) Independence in verification; (3) Independence in reporting (Sawyer, 2006).

Objectivity is an attitude that allows internal auditors to carry out their duties in such a way that they have confidence in their work and without compromising on quality. Objectivity requires internal auditors not to place their judgment about audit matters lower than other matters. Threats to objectivity must be managed from the engagement, functional, and organizational levels.

International Standards for the Professional Practice of Internal Auditing (2016); Internal auditors must have a mental attitude of being impartial and without prejudice, always avoiding possible conflicts of interest.

#### **2.1.3. Work Experience / Auditor Competence**

Auditors must have sufficient competence to carry out their work. As a relationship, the ways each individual uses their knowledge, skills and behavior at work. Sawyer (2012) states that the competence of an internal auditor must: (1) Only be involved in services that require their knowledge, skills and experience; (2) Performing internal audit services in accordance with International Standards for the Professional Practice of Internal Auditing; (3) Improve the capability and effectiveness and quality of their services.

According to Alvin A. Arens et al. (2012), competence as a necessity for auditors to have formal education in auditing and accounting, adequate practical experience for the work being carried out, and following continuing professional education. Internal auditors' competence will be measured using indicators put forward by I Gusti Agung, Rai (2008), namely: (1) good personal quality; (2) Sufficient knowledge; (3)

Special expertise in the field.

#### **2.1.4 Quality Improvement and Assurance Program**

According to Syafoinal (2016), the internal audit quality assurance and improvement program is designed so that internal auditors can evaluate the suitability of an internal audit activity with standards, and evaluate the application of a code of ethics.

The chief audit executive should encourage board oversight of insurance programs and quality improvement (International Standards for the Professional Practice of Internal Auditing, Revised 2016). The chief audit executive needs to establish program functionality, which is formally chaired by an internal audit executive and the integrity of the audit and consulting activities regularly carried out in internal audit. It also includes measurement and analysis of ongoing performance indicators. If the assessment results indicate a specific area in need of improvement, the chief audit executive must immediately implement an internal audit quality improvement program.

The quality assurance and improvement program includes: (1) Internal Assessment; (2) External assessment must be carried out at least once in five years by a qualified independent appraiser or team of assessors who come from outside the organization; (3) Disclosure of the quality assurance and improvement program.

#### **2.1.5 Ethics**

Ethics is a moral principle and actions that become the basis for one's actions so that what society does is seen as a commendable act and enhances one's dignity and honor. Auditor ethics is the science of assessing good things and bad things, about moral rights and obligations.

In order to improve the performance of auditors, auditors are required to always maintain standards of ethical behavior. Chartered Institute of Internal Auditors for the Professional Practice of Internal Auditing (2013) is stated. "A code of ethics is necessary and appropriate for the profession of internal auditing, founded as it is on the trust placed in its objective assurance about risk management, control and governance."

#### **2.1.6. Good Corporate Governance**

The Decree of the Minister of State Owned Enterprises Number PER - 01 / MBU / 2011. The application of GCG principles that underlie a process and corporate governance mechanism based on laws and regulations and business ethics. Making the company have GCG does not escape the good quality of managerial performance and internal audit within the company. A company is said to be successful in implementing GCG if it has implemented several principles of GCG according to the Keputusan Menteri BUMN Nomor PER – 01/MBU/2011, application of GCG principles in BUMN:

1. Transparency;
2. Accountability;
3. Accountability;
4. Independence;
5. Fairness

#### **2.1.7 Managerial Performance**

Managerial performance is a measure of how managers effectively carry out tasks and efficiently use resources to achieve organizational goals through the implementation of management functions Silalahi (2011). Factors that influence performance achievement are ability and motivation factors. This is in

accordance with the opinion of Keith Davis in Mangkunegara, A. A. Anwar Prabu (2016) who formulated that:

Human Performance = Ability x Motivation

Motivation = Attitude x Situation

Ability = Knowledge x Skill

## **2.2. Framework**

Internal auditors play a role in ensuring the implementation of GCG principles, namely transparency, accountability, independence and fairness which will provide clarity regarding functions, rights, internal control processes and create a balance between company organs and also balance between stakeholders. By implementing GCG, it will encourage managerial performance to be better so that it can also encourage an increase in managerial performance. Triadi and Suputra (2016) provide an indication that the better the implementation of GCG will have implications for the better managerial performance.

### **2.2.1. Effect of Independence and Objectivity of Good Corporate Governance**

Independence is a situation or position where we have no ties to the auditor. Auditors in carrying out their duties must be able to be free from outside control who wants a controlled audit report, so that the resulting audit report can be free from any engineering so that independence is able to facilitate the implementation of GCG in good company management. Hiro Tugiman (2011) states that internal auditors are considered independent if they can carry out work freely and objectively. the independence of the internal examiners can provide an impartial and unbiased assessment, which is very necessary or important for the examiner as it should be. This can be obtained through the status of the organization and the objectivity of the internal auditors.

### **2.2.2 The Effect of Work Experience / Auditor Competence on Good Corporate Governance**

An auditor who has a lot of experience in his field will be able to provide better audit quality than an auditor who is just starting his career. Internal audit advances the organization through the achievement of its objectives with a systematic approach to evaluate and increase effectiveness in risk management, control and processes on GCG. Research conducted by Dian Ratna Maharani (2017) entitled the influence of internal auditor competence and quality of internal audit services on the realization of GCG concluded that the competence of internal auditors had a significant and positive effect on GCG.

### **2.2.3 The Influence of the assurance program on Good Corporate Governance**

Internal auditors determine the nature and scope of an assurance engagement. The quality assurance and improvement program is designed to evaluate the suitability of the internal audit activity against the Standards and to evaluate the implementation of the code of ethics by internal auditors

The program also assesses the efficiency and effectiveness of the internal audit activity and identifies opportunities for improvement. By implementing the principles of GCG, namely transparency, accountability, responsibility, independence, and fairness, it is hoped that a good assurance program will provide clarity of functions, rights, obligations and responsibilities, the process of internal control and creates continuity between company organs and also the balance between stakeholders. Thus it can be done that the assurance program has a relationship with GCG.

### 2.2.4 The Influence of Ethics on Good Corporate Governance

The existence of an internal auditor is very important in ensuring the implementation of ethical values in the implementation of GCG in connection with various cases that occur. This shows that the organization is not implementing the principles or mechanisms of corporate governance properly. So that more and more companies are realizing the importance of aspects of attitude and behavior. Internal auditor ethics with the implementation of GCG have a very close relationship where internal auditors as internal parties within the company who know how the daily performance of the company must be able to implement GCG in order to achieve the goals and objectives set by the company. According to research by Lia Yunita Amalia (2018), there is an effect of internal auditors' ethics on the implementation of GCG.

### 2.2.5. Effect of Good Corporate Governance on Managerial Performance

According to Sukrisno Agoes (2013), GCG is a system that regulates the relationship between the role of the board of commissioners, the role of directors, shareholders and other stakeholders. Astuti (2010) and Todorovic (2013) state that GCG has a positive influence on managerial performance in companies. With the implementation of GCG, it will encourage better managerial performance so that it can also encourage increased company performance.

Based on the above discussion, the framework can be seen in the following scheme:

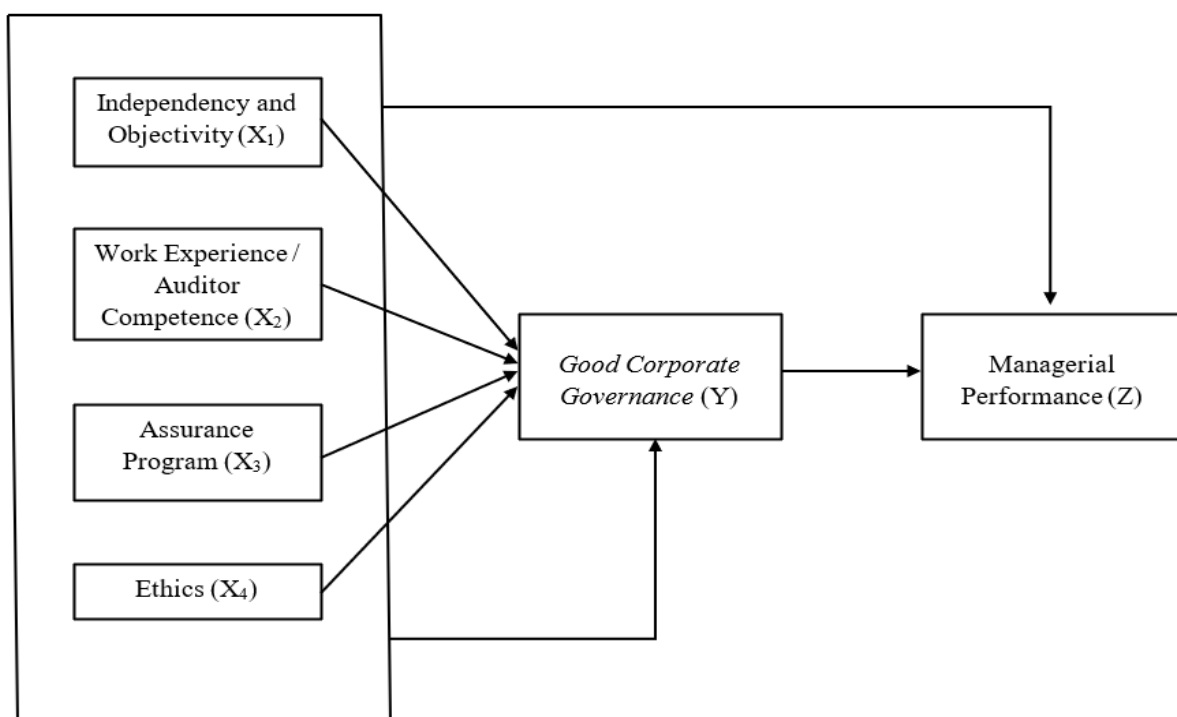


Figure 1. Framework

### 2.2.6. Hypothesis

Based on the theoretical basis that comes from the framework described earlier in this study, a provisional assumption is formulated in the form of a hypothesis, as follows:

- H1: Independence and objectivity affect GCG
- H2: Internal auditors' competence has an effect on GCG
- H3: The assurance program affects GCG
- H4: Internal Auditor ethics affect the implementation of GCG.

H5: Independency and objectivity, internal auditor competence, assurance program and ethics simultaneously affect GCG

H6: The implementation of GCG principles partially affects Managerial Performance.

H7: Independence and objectivity, internal auditor competence, assurance program and ethics simultaneously affect managerial performance.

H8: Independence and objectivity, internal auditor competence, assurance program and ethics simultaneously affect GCG and its implications for managerial performance

### III. RESEARCH METHODOLOGY

#### 3.1 Research Methods

This research method is a descriptive analysis method with a quantitative approach. By using this method, a significant relationship will be identified between the variables studied so that the conclusions will clarify the description of the object under study.

#### 3.2 Operationalization of Variables

Variable operationalization is needed to determine the type, indicator, and scale of the variables involved in the study, so that hypothesis testing with statistical tools can be carried out correctly in accordance with the research title regarding the effect of internal audit on the application of the principles of GCG and its implications for managerial performance.

i. Independent variable (Variable  $X_1, X_2, X_3, X_4$ )

Independent variables are variables that are measured, manipulated, or selected by the researcher to determine their relationship with an observed symptom. The independent variables in this study are Independence and Objectivity ( $X_1$ ), Work Experience / Auditor Competence ( $X_2$ ), Assurance Program ( $X_3$ ) and Ethics ( $X_4$ ).

ii. Dependent variable (variable Y and Z)

The dependent variable is the variable that is affected. The intermediate variable in this study is GCG, namely as variable Y and managerial performance as variable Z. To clarify and reinforce the variables studied, these variables will be operationalized as follows:

Table 1. Operationalization of Variables

Dimension	Indicators	Size Grade	Scale	Item Statement
Independence and objectivity ( $X_1$ )  The implementation of an internal audit is free from	Independence in the audit program	a) Independence from managerial intervention over the audit program. b) Independence from any intervention on audit procedures. c) Independence from any requirements for the audit engagement other than those required for an audit process.	Ordinal	IO1, 2. and 3

interference by any function in the organization, including matters of audit selection, scope, procedures, frequency, timing, or report content to enhance an independent and objective mental attitude.  Sawyer (2012)	Independence in verification	<ul style="list-style-type: none"> <li>a) Independence in accessing all records, examining assets, and employees relevant to the audit carried out.</li> <li>b) Obtain active cooperation from management employees during the audit process.</li> <li>c) Independence from all managerial efforts that attempt to limit the activities under investigation or limit the collection of evidence.</li> <li>d) Independence from self-interest that hinders verification audits.</li> </ul>	Ordinal	IO1, 2, 3, and 4
	Independence in reporting	<ul style="list-style-type: none"> <li>a) Independence from feeling obliged to modify the impact or significance of the reported facts.</li> <li>b) Independence from pressure not to report significant matters in the audit report.</li> <li>c) Avoid using misleading words either intentionally or unintentionally in reporting facts and recommendations in the auditor's interpretation.</li> <li>d) Independence from all efforts to negate the auditor's judgment regarding the facts in the internal audit report.</li> </ul>	Ordinal	IO1, 2, 3, and 4
	Be fair	Be not arbitrary and impartial with one another	Ordinal	IO1
	Free from conflicts of interest	Free from the wishes of certain parties who try to direct the audit, and free from the individual interests of certain parties in their audit assignments and limiting audit testing	Ordinal	IO1, 2
	Disclosure of conditions according to facts	Free to disclose information according to the test and determine acceptable evidence in accordance with the facts found.	Ordinal	IO1, 2

<p>Work Experience / Auditor Competence (X<sub>2</sub>)</p> <p>Auditor competence in supporting performance, Auditor must have sufficient competence to carry out his work. As a relationship, the ways each individual uses their knowledge, skills and behavior at work.</p> <p>Alvin A. Arens et al. (2012), I Gusti Agung Rai (2008)</p>	<p>Good personal qualities</p>	<p>a) Have a great curiosity about the problems in the company, have knowledge from books so that they are able to think broadly and be able to handle uncertainty.</p> <p>b) Able to work together with the team both in terms of interviews and during the audit. In addition, internal auditors must also have high integrity and be guided to have good communication skills.</p>	<p>Ordinal</p>	<p>PK1, 2, and 3</p>
	<p>Sufficient knowledge</p>	<p>a) Have the ability to carry out analytical reviews.</p> <p>b) Have knowledge of organizational theory to understand the organization where the internal auditors work to conduct a good audit.</p> <p>c) Having knowledge about auditing such as understanding SAK (Financial Accounting Standards) and SPAP (Public Accountant Professional Standards).</p> <p>d) Having knowledge about accounting obtained from the level of Strata Education so that it can help in processing numbers and data.</p>	<p>Ordinal</p>	<p>PK1, 2, 3 and 4</p>
	<p>Special expertise in the field</p>	<p>a) Having skills in conducting interviews and speed reading skills.</p> <p>b) Have statistical knowledge and are expert in using computers, at least able to operate word processing and spread sheets.</p> <p>c) Having the ability to write and present the results of the report well.</p>	<p>Ordinal</p>	<p>PK1, 2, and 3</p>

<p>Assurance Program (X<sub>3</sub>)</p> <p>The assurance program (assurance program) and internal audit quality improvement are designed so that internal auditors can evaluate the conformity of an internal audit activity with standards, and evaluate the application of a code of ethics. (Syafdinal, 2016)</p>	<p>Internal Assessment</p>	<p>a) Continuous monitoring of the performance of the internal audit activity.</p> <p>b) Periodic self-assessment or by other parties in the organization who have adequate knowledge of internal audit standards and practices.</p>	<p>Ordinal</p>	<p>PA1, 2</p>
	<p>External Assessment</p>	<p>The Head of Internal Audit must discuss with the Supervisory Board regarding:</p> <p>a) Form and frequency of external assessments.</p> <p>b) Qualifications and independence (team) of external assessors, including the possibility of conflicts of interest.</p>	<p>Ordinal</p>	<p>PA1, 2</p>
	<p>Disclosure of quality assurance and improvement programs</p>	<p>a) Limits and frequency, both on internal and external assessments</p> <p>b) Expertise and independence of (the) appraisers or the assessment team, including potential conflicts of interest</p> <p>c) Assessors' conclusions</p> <p>d) Corrective action</p>	<p>Ordinal</p>	<p>PA 1, 2, 3, and 4</p>
<p>Ethics (X<sub>4</sub>)</p> <p>A code of conduct is</p>	<p>Principles</p>	<p>Auditors must show honesty, objectivity, and seriousness in performing their duties and fulfilling their professional responsibilities.</p>	<p>Ordinal</p>	<p>E1</p>

<p>necessary and appropriate for the internal audit profession, which is based on a belief that is intended to objectively ascertain matters of risk management, control and governance.</p> <p>Chartered Institute of Internal Auditors for the Professional Practice of Internal Auditing (2013)</p>	<p>Rules of conduct</p>	<p>Internal auditors must be careful and prudent in using the information obtained in the implementation of their duties.</p>	<p>Ordinal</p>	<p>E2</p>
<p>Good Corporate Governance (Y)</p> <p>GCG are the principles that underlie a company management process and mechanism based on statutory regulations and business ethics. Making the company have good</p>	<p>Transparency</p>	<p>Openness in implementing the decision-making process</p> <p>Openness in disclosing material and relevant information about the company.</p>	<p>Ordinal</p>	<p>GCG1</p> <p>GCG2</p>
	<p>Accountability</p>	<p>Separation of functions, implementation and accountability of organs so that they are carried out effectively.</p>	<p>Ordinal</p>	<p>GCG3</p>
	<p>Responsibility</p>	<p>Adherence to laws and regulations and sound corporate norms.</p>	<p>Ordinal</p>	<p>GCG4</p>
	<p>Independence</p>	<p>A condition in which the company is managed in a professional manner without conflict of interest and influence / pressure from any party that is not in accordance with laws and regulations and sound corporate principles.</p>	<p>Ordinal</p>	<p>GCG5</p>

<p>corporate governance does not escape the good quality of managerial performance and internal audit within the company.</p> <p>Keputusan Menteri Badan Usaha Milik Negara Nomor PER – 01/MBU/2011.</p>	<p>Fairness</p>	<p>Fairness in fulfilling the rights of stakeholders that arise based on agreements and statutory regulations</p>	<p>Ordinal</p>	<p>GCG6</p>
<p>Managerial Performance (Z)</p> <p>Managerial performance is a measure of how managers effectively carry out tasks and efficiently use resources to achieve organizational goals through the implementation of management functions.</p> <p>Silalahi (2011), Keith Davis in A.A Anwar Prabu Mangkunegara (2016)</p>	<p>Ability Factor</p>	<p>Psychologically, abilities consist of potential abilities (IQ) and reality abilities (knowledge + skills).</p>	<p>Ordinal</p>	<p>FK1</p>
	<p>Motivation Factors</p>	<p>Motivation is defined as the attitude of leaders and employees to the work situation in their organization.</p>	<p>Ordinal</p>	<p>FM1</p>
		<p>Having a positive work environment will have an impact on high morale</p>		<p>FM2</p>
<p>Being negative in their work situation will result in low work motivation.</p>	<p>FM3</p>			
<p>The work situation in question includes, among other things, work relations, work facilities, work climate, leadership policies, work leadership patterns, and working conditions.</p>	<p>FM4</p>			
<p>Other factors that can affect the achievement of auditor performance that can affect the achievement of auditor performance are Competence and Independence.</p>	<p>FM5</p>			

## IV. RESULTS AND DISCUSSION

### 4.1. Measurement Model Test

#### 4.1.1. Exogenous Construct Measurement Model

The test results for each indicator are shown as follows:

Table 2. Exogenous Construct Measurement Model

Latent Variable	Manifest Variable	$\lambda$	$\lambda^2$	e	CR	VE
Independence & Objectivity	X <sub>1.1</sub>	0.923	0.852	0.148	0.958	0.593
	X <sub>1.2</sub>	0.715	0.511	0.489		
	X <sub>1.3</sub>	0.750	0.563	0.438		
	X <sub>1.4</sub>	0.912	0.832	0.168		
	X <sub>1.5</sub>	0.664	0.441	0.559		
	X <sub>1.6</sub>	0.780	0.608	0.392		
	X <sub>1.7</sub>	0.809	0.654	0.346		
	X <sub>1.8</sub>	0.740	0.548	0.452		
	X <sub>1.9</sub>	0.897	0.805	0.195		
	X <sub>1.10</sub>	0.631	0.398	0.602		
	X <sub>1.11</sub>	0.694	0.482	0.518		
	X <sub>1.12</sub>	0.929	0.863	0.137		
	X <sub>1.13</sub>	0.713	0.508	0.492		
	X <sub>1.14</sub>	0.684	0.468	0.532		
	X <sub>1.15</sub>	0.680	0.462	0.538		
	X <sub>1.16</sub>	0.703	0.494	0.506		
Work Experience / Auditor Competence	X <sub>2.1</sub>	0.820	0.672	0.328	0.928	0.564
	X <sub>2.2</sub>	0.729	0.531	0.469		
	X <sub>2.3</sub>	0.791	0.626	0.374		
	X <sub>2.4</sub>	0.777	0.604	0.396		
	X <sub>2.5</sub>	0.847	0.717	0.283		
	X <sub>2.6</sub>	0.855	0.731	0.269		
	X <sub>2.7</sub>	0.651	0.424	0.576		
	X <sub>2.8</sub>	0.649	0.421	0.579		
	X <sub>2.9</sub>	0.687	0.472	0.528		
	X <sub>2.10</sub>	0.664	0.441	0.559		
Insurance Program	X <sub>3.1</sub>	0.704	0.496	0.504	0.903	0.701
	X <sub>3.2</sub>	0.882	0.778	0.222		
	X <sub>3.3</sub>	0.864	0.746	0.254		
	X <sub>3.4</sub>	0.885	0.783	0.217		
Ethics	X <sub>4.1</sub>	0.831	0.691	0.309	0.931	0.693
	X <sub>4.2</sub>	0.864	0.746	0.254		
	X <sub>4.3</sub>	0.858	0.736	0.264		
	X <sub>4.4</sub>	0.898	0.806	0.194		
	X <sub>4.5</sub>	0.794	0.630	0.370		
	X <sub>4.6</sub>	0.739	0.546	0.454		

Note:  $\lambda$ = loading factor value, e=error, CR=composite reliability, VE=variance extracted

Source: Lisrel Output, 2020 Primary Data

The table above shows that the endogenous constructs have good construct validity and reliability

#### 4.1.2. Measurement Model of Endogenous Constructs

The results of measurement model testing for endogenous constructs can be seen through the value of the loading factor coefficient for each indicator which is presented in the following table:

Table 3. Endogenous Construct Measurement Model

Latent Variable	Manifest Variable	$\lambda$	$\lambda^2$	e	CR	VE
Good Corporate Governance	Y <sub>1</sub>	0.927	0.859	0.141	0.965	0.824
	Y <sub>2</sub>	0.884	0.781	0.219		
	Y <sub>3</sub>	0.936	0.876	0.124		
	Y <sub>4</sub>	0.960	0.922	0.078		
	Y <sub>5</sub>	0.976	0.953	0.047		
	Y <sub>6</sub>	0.745	0.555	0.445		
Managerial Performance	Z <sub>1</sub>	0.726	0.527	0.473	0.905	0.617
	Z <sub>2</sub>	0.856	0.733	0.267		
	Z <sub>3</sub>	0.896	0.803	0.197		
	Z <sub>4</sub>	0.851	0.724	0.276		
	Z <sub>5</sub>	0.743	0.552	0.448		
	Z <sub>6</sub>	0.601	0.361	0.639		

Note:  $\lambda$  = loading factor value, e = error, CR = composite reliability, VE = variance extracted

Source: Lisrel Output, 2020 Primary Data

The table above shows that each manifest variable is valid in forming an endogenous construct. Then the value of CR and VE above 0.5 means that the endogenous construct has good construct validity and reliability.

#### 4.1.3. Structural Model Test

The use of Structural Equation Modeling (SEM) as an effort to test hypotheses. The covariance matrix provides valid comparisons between different populations or samples.

##### 4.1.3.1. Structural Equation Model Analysis

SEM analysis using Lisrel version 8.7 software assistance. The results of structural modeling can be seen in the following figure:

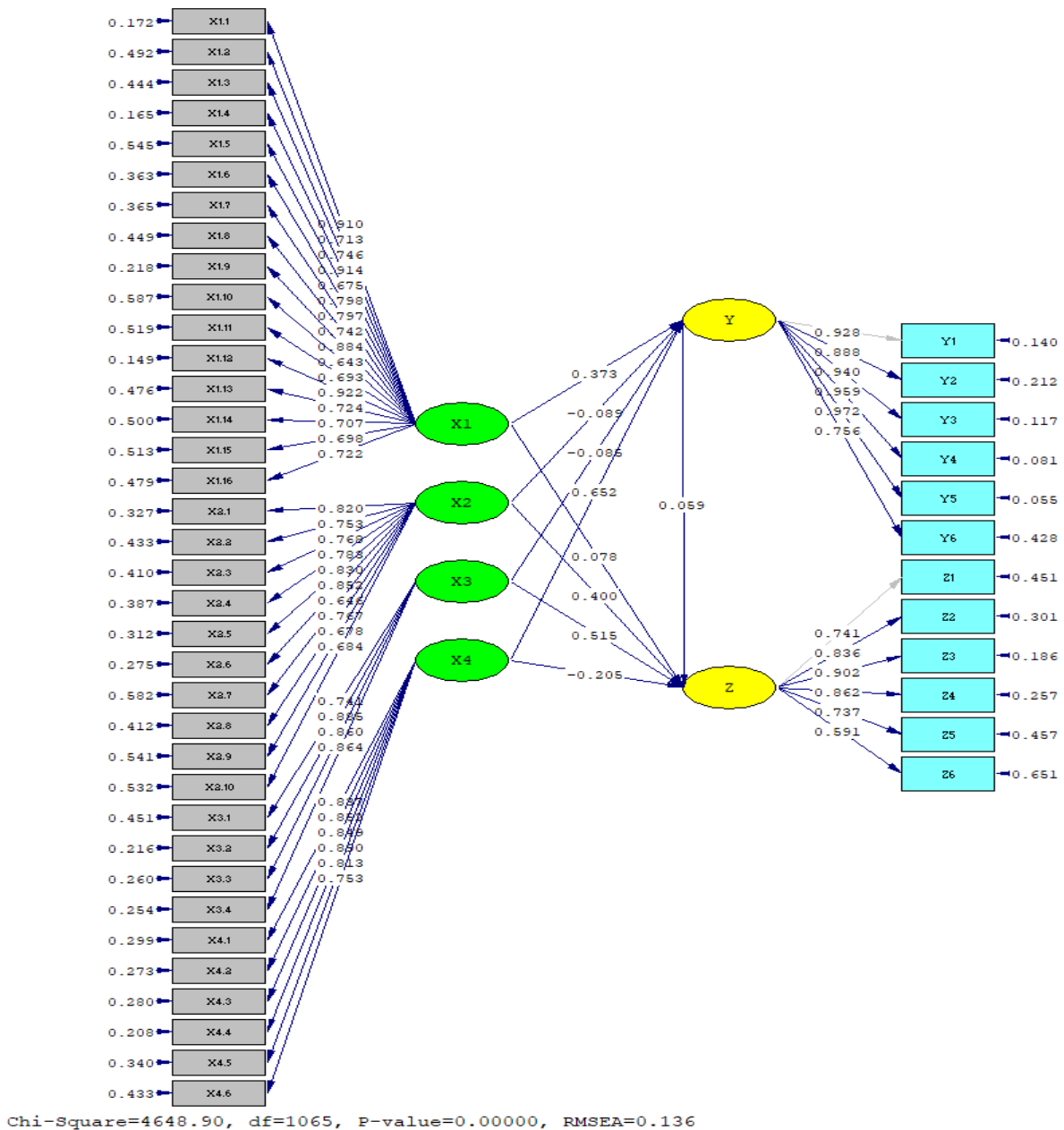


Figure 2. Structural Equation Model

From this structural model, two structural equations are obtained as follows:

$$Y = 0.373 * X_1 - 0.089 * X_2 - 0.085 * X_3 + 0.652 * X_4, \text{ Errorvar.} = 0.299, R^2 = 0.701$$

$$Z = 0.059 * Y + 0.078 * X_1 + 0.400 * X_2 + 0.515 * X_3 - 0.205 * X_4, \text{ Errorvar.} = 0.361, R^2 = 0.639$$

Note:

Y = Good Corporate Governance (GCG)

X<sub>1</sub> = Independence and Objectivity

X<sub>2</sub> = Internal Auditor Competence

X<sub>3</sub> = Insurance Program

X<sub>4</sub> = Internal Auditor Ethics

Z = Managerial Performance

From the first equation it can be explained that the total effect of independence and objectivity, internal auditor competence, assurance program and internal auditor ethics on managerial performance is 70.1%. In the second equation, the total effect of independence and objectivity, internal auditor competence, assurance program, internal auditor ethics and the application of GCG principles to managerial performance is 63.9%.

#### 4.1.3.1. Model Feasibility Test

The results of the structural modeling are as follows:

Table 4. Goodness of Fit Research Model Testing

Variable			Estimate	SE	T-stat	t table	Information
X <sub>1</sub>	-->	Y	0,373	0,092	4,074	±1,96	Significant
X <sub>2</sub>	-->	Y	-0,089	0,168	-0,529	±1,96	Non-Significant
X <sub>3</sub>	-->	Y	-0,085	0,093	-0,917	±1,96	Non-Significant
X <sub>4</sub>	-->	Y	0,654	0,173	3,777	±1,96	Significant
Y	-->	Z	0,059	0,103	0,574	±1,96	Non-Significant
X <sub>1</sub>	-->	Z	0,078	0,109	0,715	±1,96	Non-Significant
X <sub>2</sub>	-->	Z	0,400	0,198	2,026	±1,96	Significant
X <sub>3</sub>	-->	Z	0,515	0,117	4,412	±1,96	Significant
X <sub>4</sub>	-->	Z	-0,205	0,216	-0,946	±1,96	Non-Significant

Source: Lisrel Output, 2020

Based on the coefficient values in the table above, it is obtained:

#### 1. Independence and Objectivity Partially Affect Good Corporate Governance

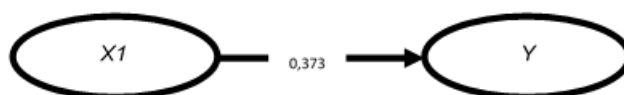


Figure 3. Hypothesis 1

The coefficient value of standardize regression (estimate) between the independence and objectivity variables with the GCG variable is 0.373 and the t count is 4.074. The meaning of the independence and objectivity variables partially affects GCG.

#### 2. Internal Auditor Competence partially affects Good Corporate Governance

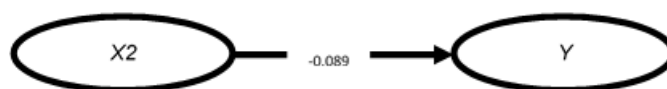


Figure 4. Hypothesis 2

The standardize regression coefficient (estimate) between the Internal Auditor Competence variable and the GCG variable is -0.089 (negative) and has a t count of -0.529 or less than -1.96 then H0 is accepted. This means that the Internal Auditor Competence variable partially has no effect on GCG, so that hypothesis 2 is rejected.

### 3. The Assurance Program Partially Affects Good Corporate Governance

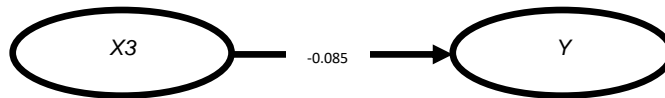


Figure 5. Hypothesis 3

The standardize regression coefficient (estimate) between the Assurance Program variable and the GCG variable is -0.085 (negative) and has a t count of -0.917 or less than -1.96, then H0 is accepted. This means that the Assurance Program variable does not partially affect GCG, so that hypothesis 3 is rejected.

### 4. Internal Auditor Ethics partially affects Good Corporate Governance

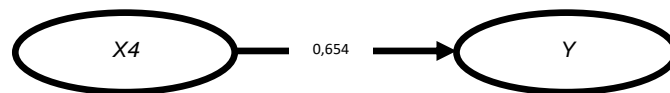


Figure 6. Hypothesis 4

The standardize regression coefficient (estimate) between the Internal Auditor Ethics variable and the GCG variable is 0.654 above the t count of 3.777, so H0 is rejected. This means that the Internal Auditor Ethics variable partially affects GCG, so that hypothesis 4 is accepted.

### 5. Independency and Objectivity, Internal Auditor Competence, Assurance Program and Ethics simultaneously affect GCG

Simultaneous hypothesis testing using the following formula:

$$F \text{ count} = \frac{(n-k-1)R^2}{k(1-R^2)}$$

$$F \text{ count} = \frac{(182-4-1)0,701}{4(1-0,701)} = 104,33$$

This means that independency and objectivity, internal auditor competence, assurance program and ethics simultaneously have a significant effect on GCG. Following are the results of the calculation of F calculated based on the formula above.

Table 5. Hypothesis 5

6. Variable			F count	F Table	Note
X <sub>1</sub> -X <sub>4</sub>	→	Y	104,33	2,42	Significant

The calculated F value is 104.33. With a sample size of 182 obtained F table of 2.42. This means simultaneously that the independence and objectivity, the competence of internal auditors, the assurance program and ethics simultaneously affect GCG. (Hypothesis 5 is accepted)

### 6. The implementation of GCG principles partially affects Managerial Performance



Figure 7. Hypothesis 6

The standardize (estimate) regression coefficient value between the variable GCG Principles Application and Managerial Performance variable is 0.059 (positive) and has a t count of 0.574 or less than 1.96 then H<sub>0</sub> is accepted. This means that the variable of GCG Principles Application partially has no effect on Managerial Performance, so hypothesis 6 is rejected.

### 7. Independency and Objectivity, Internal Auditor Competence, Assurance Program and Ethics simultaneously influence Managerial Performance

Simultaneous hypothesis testing uses the following formula:

$$F \text{ count} = \frac{(n - k - 1)R^2}{k(1 - R^2)}$$

$$F \text{ count} = \frac{(182 - 4 - 1)0,638}{4(1 - 0,638)} = 78,43$$

From the F table, there is a significant influence between independence and objectivity, internal auditor competence, assurance program and ethics simultaneously have an effect on managerial performance through CGG. Following are the results of the calculation of F calculated based on the formula above.

Table 6. Hypothesis 7

Variable			F count	F Table	Note
X <sub>1</sub> -X <sub>4</sub>	→	Z	78,43	2,42	Significant

Based on the results of the calculation, the calculated  $F$  value was 78.43. This value will be compared with the  $F$  table value with a sample size of 182 obtained  $F$  table of 2.42. Thus  $F \text{ count} > F \text{ table}$ , meaning that simultaneously independence and objectivity, internal auditor competence, assurance program and ethics simultaneously affect Managerial Performance (Hypothesis 6 is accepted).

**8. Independency and Objectivity, Internal Auditor Competence, Assurance Program and Ethics simultaneously affect good corporate governance and its implications for managerial performance**

The hypotheses tested are:

To test the hypothesis simultaneously, the  $F$  test is used with the following formula:

$$F \text{ count} = \frac{(n-k-1)R^2}{k(1-R^2)}$$

$$F \text{ count count} = \frac{(182-5-1)0,639}{5(1-0,639)} = 62,66$$

The stipulation is that if the calculated  $F$  value is greater than the  $F$  table, it means that there is a significant influence between independence and objectivity, the competence of internal auditors, the assurance program and ethics simultaneously affect Managerial Performance through CGG. Following are the results of the calculation of  $F$  calculated based on the formula above.

Table 7. Hypothesis 8

Variable			$F$ count	$F$ Table	Note
X <sub>1</sub> -X <sub>4</sub> and Y	→	Z	62,66	2,27	Significant

The calculation results obtained the calculated  $F$  value of 62.66. The number of samples of 182 obtained  $F$  table of 2.27. This means that independence and objectivity, internal auditor competence, assurance program and ethics simultaneously affect good corporate governance and their implications for managerial performance (Hypothesis 8 is accepted).

**V. CONCLUSION**

**5.1. Conclusion**

Basically, internal audit is one of the important roles in realizing the implementation of GCG principles, it will also affect the pros and cons of managerial performance. The results of data analysis that have been submitted and tested can be concluded as follows:

1. Independence and objectivity partially affect GCG
2. Internal Auditor Competence variable partially has no effect on GCG.
3. Assurance Program variable does not partially affect GCG.
4. Internal Auditor Ethics partially affects GCG.
5. Independency and objectivity, internal auditor competence, assurance program and ethics simultaneously affect GCG.
6. The partial application of GCG Principles has no effect on Managerial Performance
7. Independence and Objectivity, Internal Auditor Competence, Assurance Program and Ethics

simultaneously have an effect on Managerial Performance.

8. Independency and objectivity, internal auditor competence, assurance program and ethics simultaneously influence GCG and its implications for managerial performance.

## 5.2. Suggestions

Based on the above conclusions, the authors suggest the following:

1. To improve competence in the form of curiosity to achieve self-reliance.
2. It is necessary to improve the internal auditor insurance program to improve the quality of its audits to meet better accountability.

## REFERENCES

1. KPK dalam Kontrak Kerja PT Dirgantara Indonesia dengan Mitra. <https://news.detik.com/berita/d-5055190/kpk-panggil-3-pejabat-pt-di-jadi-saksi-kasus-dugaan-korupsi>.
2. Adrian, Sutedi. 2012. "Good Corporate Governance". Sinar Grafika. Jakarta.
3. Agoes, Sukrisno. 2012. Auditing Petunjuk Praktis Pemeriksaan Akuntan Oleh Akuntan Publik. Salemba Empat, Jakarta.
4. Arens, A. Alvin, Randal J. Elder, Mark S. Beasley, and Amir Abadi Jusuf (2012). Jasa Audit dan Assurance. Jakarta: Salemba Empat.
5. Astuti, D.S.P. (2010). Peran Internal Audit dan Komite Audit dalam Mewujudkan Good Corporate Governance. <http://download.portalgaruda.org/article.php>.
6. I Gusti Agung, Rai (2008). Audit Kinerja Pada Sektor Publik. Jakarta: Grafindo.
7. Mangkunegara, A. A. Anwar Prabu. (2016). Manajemen Sumber Daya Manusia Perusahaan, PT. Remaja Rosdakarya, Bandung.
8. Sawyer, Lawrence B, Dittenhofer Mortimer A, Scheiner James H (2006), Internal Auditing, Salemba Empat: Jakarta.
9. Sawyer, Lawrence B, Dittenhofer Mortimer A, Scheiner James H (2009) Internal Auditing, Diterjemahkan oleh: Desi Adhariani, Salemba Empat: Jakarta.
10. Silalahi, U. (2011). Asas-asas Manajemen. Bandung: PT Refika Aditama.
11. Tugiman Hiro (2011). Pandangan Baru Internal Auditing. Yogyakarta: Karnisius.
12. Dian Ratna Maharani (2017). Pengaruh Kompetensi Auditor Internal dan Kualitas Jasa Audit Internal Terhadap Perwujudan GCG. Jurnal Ilmiah Riset Akuntansi, 6(7).
13. Ginting (2010). Pengaruh Partisipasi Anggaran dan Kejelasan Sasaran Anggaran Terhadap Kinerja Aparat Perangkat Daerah di Pemerintahan Kabupaten Karo. Master thesis, Universitas Sumatera Utara Medan.
14. Lia Yunita Amalia (2018) Pengaruh Etika Auditor Internal dan Pengendalian Internal Terhadap Pelaksanaan Good Corporate Governance. PhD thesis, Unpas Bandung.
15. Triadi and Suputra (2016) Pengaruh Pengendalian Intern dan Penerapan Prinsip-Prinsip Good Corporate Governance Terhadap Kinerja Manajerial (Studi Pada PT BRI Persero Tbk. Cabang Denpasar). EJurnal Akuntansi Universitas Udayana, 16(2), 895-920.
16. Syafdinal (2019). Pengaruh Persepsi Ketidakpastian Lingkungan, Ambiguitas Peran dan Konflik Peran terhadap Integritas serta Implikasinya: Studi Peningkatan Program Asurans dan Kualitas Audit Internal. Jurnal Internasional Inovasi, Kreativitas dan Perubahan, 6(7), 298-324.
17. Todorovic, I. (2013). Impact of Corporate Governance on Performance of Companies. Montenegrin Journal of Economics, 9(2), 47.

18. Chartered Institute of Internal Auditors for the Professional Practice of Internal Auditing (2013).
19. Keputusan Menteri Badan Usaha Milik Negara Nomor PER – 01/MBU/2011.
20. The Institute of Internal Auditors (2016), Standar Internasional Praktik Profesional Audit Internal.