



## Determinants of the Effectiveness of Internal Audit and Its Impact on Good Government Governance

Asri Usman ,Syamsuddin, Abdul Rahman

Corresponding Author: Asri Usman

**ABSTRACT:** This research aims to provide an overview and empirical evidence about the Determination of the Effectiveness of Internal Audit and its impact on Good Governance. The research object in this case is the Inspectorate auditor who is the internal auditor of the district / city government (Inspectorate District / City in South Sulawesi Province). The sample used and estimated is 100 internal auditors (Auditor Inspectorates) as respondents. The data were analyzed using Structural Equation Model (SEM) with SmartPLS 3.0.

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### I. INTRODUCTION

The moral and leadership crisis that hit several regional / city leaders in Indonesia in recent years resulted in higher levels of corruption. The Commonwealth Association for Corporate / Government Governance (1999) argues that one of the root causes of the crisis and also in various other Asian countries is the poor implementation of government governance (GG) in almost all regional / city governments, both Level I and government Level II.

The presence of GG was motivated by cases of corruption scandals, hand-held operations (OTT) and gratuities in several level I and level II regional governments. This is due to not applying the principles of Good Corporate Governance (GGG). Kaihatu (2006) states that the collapse of the organization of public trust is due to the failure of the strategy and fraudulent practices of top management which took place undetected for quite a long time due to the weakness of independent supervision.

Cases regarding GGG deviations do not only occur in the central government, but also occur in local governments in the territory of Indonesia, especially the provinces of South Sulawesi and regencies / cities in South Sulawesi Province. Corruption cases according to the Sulawesi Legislative Monitoring Committee (Kopel) South released the total state losses from corruption cases that occurred in South Sulawesi throughout 2016 which claimed state losses of Rp. 95.7 billion. Corruption cases that harm the country originated from several sectors, but the biggest contributed state losses from the health sector amounting to Rp. 11.7 billion in the agricultural sector, Rp. 2.2 billion and the education sector Rp. 1.9 billion (sourceTempo.co, February18, 2018).

These cases show that there are still many irregularities that occur in the local government in the city / district in South Sulawesi Province. This case occurs because the city / regional government is unable to maintain the principles of the GGG and become a good public organization towards stakeholders so that it impacts on the going concern and trust of stakeholders / the public to the city / regional government. The concept of GGG is in line with stakeholder theory which states that local / city governments are not entities that only operate for their own interests but must provide benefits to stakeholders / the people. Therefore, the objective of the formation of an entity is not only to maximize development for the benefit of the people, but also to be able to provide benefits to other stakeholders.

Good government governance will protect the interests of all government stakeholders, ensure the integrity, quality, transparency and reliability of financial statements, monitor the adequacy and effectiveness of internal controls and ensure the quality of audit functions (Rezaee, 2005). Daniri (2005) explains that the benefits of implementing GGG are to create support from stakeholders in the government environment towards the existence of the government and various strategies and policies pursued by the government, because generally they are guaranteed that they will get maximum benefit from all government actions and operations in creating prosperity and prosperity. Therefore, application GGG needs to be supported by various interconnected parties, namely the government as a regulator, the business world as market participants, and the community as

users of products and services. The government as a regulator has supported the implementation of GGG by establishing regulations that can help the implementation of GGG in government (Waracanova, 2012).

Effective internal audit allows the company / local government to achieve its objectives. According to Waracanova (2012), internal audit is a service that can provide added value so that it can improve company / government operations, risk management, internal control, financial reports and compliance with applicable regulations. According to KNKG, the work unit or internal audit function can assist directors / leaders in ensuring the achievement of company / government goals by: (i) evaluating the implementation of regional work programs, (ii) providing advice in an effort to improve the effectiveness of the risk control process, (iii) evaluating the government's compliance with the regulations, implementation of the GGG and legislation, and (iv) facilitating the smooth implementation of audits by external auditors. In line with this,

The quality of internal audit is determined by the ability of the internal audit department / regional / city inspectorate to provide useful findings and recommendations. Internal audit must prove that its findings and recommendations increase the value of the organization. Glazer and Jaenike (1980) argue that doing audit work in accordance with internal audit standards contributes significantly to audit effectiveness.

Research on the relationship of internal audit quality to GGG was carried out by Munyi and Njiru (2015), Rahmawati (2015), and Trotman (2013). Munyi and Njiru (2015) found that there was a positive and significant relationship between audit quality and GGG. In line with that, Trotman's research (2013) states that the results of quality internal audits will be used by actors of governance to make organizational judgments and decision making. This indicates that there is a close relationship between the quality of internal audit and GGG. This study is not in line with the research conducted by Rahmawati (2015) who found that financial audits and performance audits conducted by internal auditors had no effect on GGG.

Research on the relationship of the independence of internal auditors to Good Corporate Governance (GCG) has been done by Quansah (2015), Edwin (2013), and Herman et al. (2013). Quansah (2015) found that the independence of internal auditors working at Ghana Post was very disturbed because they were always regarded as employees by management, so that internal auditor reporting to boards was only considered a formality to meet CG requirements. states that the independence of internal auditors does not affect GCG. Whereas the research conducted by Edwin (2013) found that the independence of internal auditors had a positive effect on GCG in commercial banks in Kenya. The results of this study are in line with the research of Herman et al. (2013) which shows that audit factors internal which includes independence has a significant effect on the implementation of GCG in state-owned companies headquartered in the city of Jakarta.

Research on the relationship of expertise of internal auditors to GGG has been carried out by Herman et al. (2013), Al-Jabali et al. (2011), and Sarens et al. (2006). Research results of Herman et al. (2013) and Sarens et al. (2006) show that the expertise of internal auditors positively influences the implementation of GGG. In addition, research conducted by Al-Jabali et al. (2011) states that internal auditors must have the ability to think analytically and be critical to being able to understand the threats and risks facing the company and must have access to technology and knowledge to improve their performance. This is access to effective GG. So it can be concluded that there is a positive relationship between the expertise of internal auditors on GGG.

The research related to the factors that influence the effectiveness of internal audits was carried out by Cohen and Sayag (2010) who found that the professional expertise of internal auditors had no effect on the effectiveness of internal audits, the quality of internal audit work had no effect on the effectiveness of internal audits, and the higher level the independence of the internal audit organization, the higher the effectiveness of the internal audit.

## **II. RESEARCH OBJECTIVES**

1. To determine the effect of the quality of internal audit on the effectiveness of internal audits.
2. To determine the effect of the expertise of internal auditors on the effectiveness of internal audits.
3. To determine the effect of the independence of internal auditors on the effectiveness of internal audits.
4. To determine the effect of the quality of internal audit on GGG directly and indirectly.
5. To determine the effect of the independence of internal auditors on GGG directly and indirectly.
6. To find out the influence of the expertise of internal auditors on GGG directly and indirectly.
7. To determine the effect of the effectiveness of internal audit on GGG.

## **III. LITERATURE REVIEW**

### **3.1 Attribution Theory**

Attribution theory is a theory that explains a person's behavior. Attribution theory explains the understanding of a person's reaction to events around them, knowing their reasons for the events experienced. Attribution theory explains that there are behaviors related to individual attitudes and characteristics, so it can be said that only by looking at a person's behavior will be able to know the attitude or characteristics of the person

and can also predict a person's behavior in dealing with certain situations. According to Luthans (2005), attribution theory refers to how people explain the causes of other people's behavior or themselves.

This theory states that a person's behavior is determined by a combination of internal forces (internal forces) and external forces (external forces). Internal strengths are factors that originate from a person such as ability, knowledge or business; while external forces are external factors such as luck, opportunity and environment (Heider, 1958).

### 3.2 Agency Theory

Agency theory related to the conflicts of interest of principals and agents. Jensen and Meckling's (1976) model of agency costs and ownership structures that play an important role in corporate governance. Agency theory addresses the contractual relationship of one person or more principals which involves other people (agents) to do some services on their behalf and delegate some decision-making authority to agents (Jensen and Meckling, 1976: 308). This occurs because of the separation of ownership and control, when the owner of the company or board of directors (principals) must hire managers (agents) to run the business and need to monitor the performance of agents to ensure they act in the interests of the owner. The main concern of agency theory as proposed by Jensen and Meckling (1976) is how to make contracts where the performance of agents can be measured and given incentives so that they act in accordance with the interests of the principal. This is due to the assumption that agents will have diverse objectives. The two main agency problems, namely how to harmonize the conflicting goals of the principal and the agent and how to ensure the agent acts in the manner that the principal expects. These problems can occur when an executive or manager makes a decision that focuses on his personal interests and manipulates information to present better performance figures.

### 3.3 Stakeholder Theory

The definition of stakeholders according to Freeman (1984) is an individual or group that can influence and / or be influenced by the organization as a result of its activities. Whereas Chariri and Ghazali (2007) say that a company is not an entity that only operates for its own interests but must provide benefits to its stakeholders (shareholders, creditors, consumers, suppliers, government, society, analysts and other parties). Therefore, it can be concluded that in an activity the company is influenced by external and internal factors of the company called stakeholders.

### 3.4 Good Corporate / Government Governance

According to Pratolo (2007), GGG is a system that exists in an organization that has the aim of achieving organizational performance to the maximum extent possible in ways that do not harm the organization's stakeholders. According to Zarkasyi (2008), the definition of GGG is a system (input, process, output) and a set of rules that regulate relations between various stakeholders (stakeholders), especially in the narrow sense of the relationship between shareholders, board of commissioners and board of directors for the sake of creating organization goals. GG organizations determine the distribution of rights and responsibilities among different stakeholders in the organization, such as boards of directors, managers, shareholders, communities and other stakeholders, and establish rules and procedures for decision making. The Institute of Internal Auditors in Indonesian Internal Audit Standards defines GG as a combination of processes and structures implemented by the Board in order to inform, direct, manage and monitor the activities of the organization to achieve the objectives. Based on these definitions, it can be concluded that GGG is a system owned by the organization to achieve maximum performance by regulating relationships among stakeholders.

### 3.5 Effectiveness of Internal Audit

Effectiveness is the ability to get results that are consistent with the target goals (Arena and Azzone, 2009). Mihret and Yismaw (2007) define the effectiveness of internal auditing as to the extent to which the internal audit office / regional inspectorate office / city meets the intended purpose or the extent of the internal audit office to meet the desired results. Therefore, it can be concluded that the effectiveness of internal auditing is the ability of internal auditors to achieve apredetermined goal or target. The existence of an internal audit / inspectorate to assist in terms of risk management, control, and governance will be highly recommended for recommendations and evaluations as material in decision making. Therefore, internal audits are required to be effective so that they can produce valid, reliable recommendations and add value to the auditee (Mihret et al., 2010).

### 3.6 Quality of Internal Audit

Arens et al. (2011) states that audit quality is how well the audit detects and reports material misstatements in financial statements. Detection aspect is a reflection of auditor competency, while reporting is

a reflection of ethics or auditor integrity, especially independence. Audit quality is interpreted by DeAngelo (1981) as the probability of an auditor to can find and report fraud that occurs in the client's accounting system. To get good audit quality, according to Rai (2010), auditors must have sufficient ability to be able to produce audit reports accurately, useful, and credible. 3.7 Independence of Internal Auditors

Independence is free from situations that could threaten the ability of internal auditors to be able to carry out impartial internal audit responsibilities (The Institute of Internal Auditors, 2012). By therefore, an auditor is not justified in favor of anyone's interests even though he works for the company. If the auditor is not independent, it is difficult to maintain his freedom of opinion.

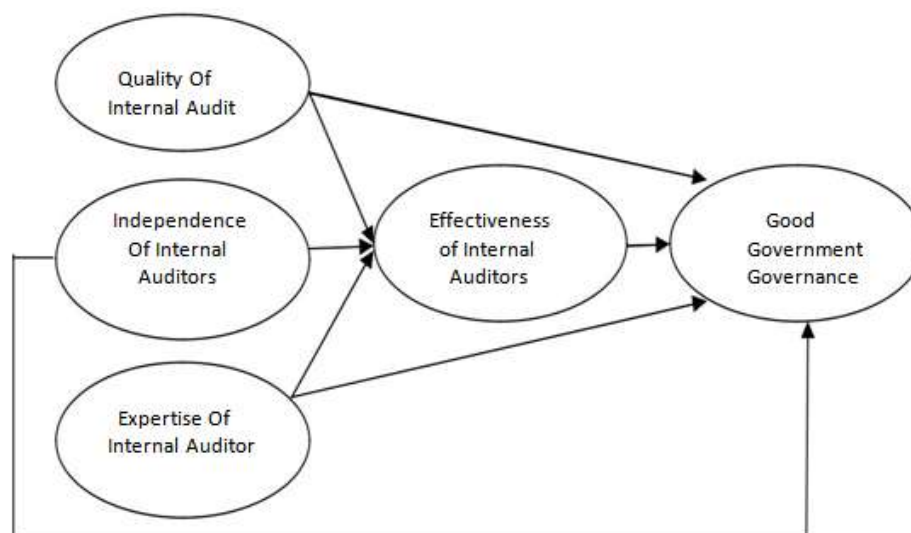
The auditor intellectually must be honest, free from obligations to his clients and not have interests with clients, both to management and owners. Independence in auditors can be related to disclosure of a company's internal control problems (Zhang et al., 2007). The International Auditing and Assurance Standards Board (2013) states that auditor independence is needed to safeguard audit team members from influences that endanger professional judgment, so that they act with integrity and objectivity (independence of mind) and professional skepticism.

### 3.8 Thinking Framework

This research is based on attribution theory. Attribution theory explains the understanding of a person's reaction to events around them, knowing their reasons for the events experienced. According to Dayakisni (2006), attribution is a process carried out to find an answer or question why or why for the behavior of other people or themselves. This attribution process is very useful to help our understanding of the causes of behavior and is an important mediator for our reaction to the social world.

Agency theory, according to Eisenhard (1989), is based on three assumptions. These assumptions are that humans have selfishness, the information asymmetry between principals and agents, and information is a commodity that can be traded. Based on these assumptions, this research was conducted. The information gap between principals and agents makes the company need a "right hand" that functions as a controller so that the information is not misused by the agent. One important function that needs to be present in a company is internal audit.

Stakeholder theory Freeman (1984) states that individuals or groups can influence and / or be influenced by the organization as a result of their activities. GG is a process and structure applied in running a company, with the main goal of increasing shareholder value in the long term, while still taking into account the interests of other stakeholders (Suprayitno, 2004). To achieve GCG, one of them can be done by implementing an effective internal audit process. Effective internal audit allows the company to achieve its objectives so as to increase the value of the company.



### 3.9 Hypothesis

1. H1: The quality of internal audit has a positive effect on the effectiveness of internal audits.
2. H2: Independence of internal auditors has a positive effect on the effectiveness of internal audits.
3. H3: The expertise of internal auditors has a positive effect on the effectiveness of internal audits.
4. H4: The quality of internal audit has a positive and indirect effect on GGG.
5. H5: Independence of internal auditors has a positive and indirect effect on GGG.
6. H6: The expertise of internal auditors has a positive and indirect effect on GGG

7. H7: The effectiveness of internal audit has a positive effect on GGG.

#### **IV. RESEARCH METHODS**

4.1 Research Design The design of this study aims to determine the perceptions of internal auditors on the influence of audit quality, auditor independence, and auditor expertise on the effectiveness of internal audits and their impact on good government governance (GGG). This study uses hypothesis testing by testing the relationship of all causal research variables.

##### 4.2 Population, Samples, and Sampling Techniques

The population in this study were all internal inspectorate auditors in districts / cities in South Sulawesi. The sample is part or representative of the population to be studied. Samples chosen from the population are considered to represent the existence of the population. Sampling uses Purposive sampling technique. The sample criteria used in this study are auditors of the inspectorate who already have experience in conducting audits of local / city government financial reports.

##### 4.3 Data Collection Method

The data collection model used in this study is survey research because it is done using a questionnaire as a tool to collect primary data using written statements. The data collection technique in the survey method in this study is by directly distributing the list of questions in the form of a questionnaire that will filled by auditors from the inspectorate working in the regional / municipal government in South Sulawesi. Returning the questionnaire that has been filled no later than one month from the time of receipt of the questionnaire.

##### 4.5 Research Variables and Operational Definitions

###### 4.5.1 Research Variables

The variables used in this study are dependent variable, independent variable, and mediating variable. The dependent variable used is GCG. The independent variable used is the quality of internal audit, the expertise of internal auditors, and the independence of internal auditors. The intervening variable used is the effectiveness of internal audit.

###### 4.5.2 Operational and Measurement Definitions

###### 4.5.2.1 Good Government Governance

Good government governance is a system that exists in an organization that has the aim to achieve organizational performance to the maximum extent possible in ways that do not harm the organization's stakeholders (Pratolo, 2007). The Institute of Internal Auditors in Indonesian Internal Audit Standards define GGG as a combination of processes and structures implemented by the Board in order to inform, direct, manage and monitor the activities of the organization to achieve the objectives. GGG variables were measured using a 1 to 5 Likert scale (1 = strongly disagree and 5 = strongly agree). This variable is measured by indicators according to the National Committee on Governance Policy (KNKG) with instruments from KNKG and Any Maskur (2012).

###### 4.5.2.2 Effectiveness of Internal Audit

Mihret and Yismaw (2007) define the effectiveness of internal audit as the extent to which the internal audit office meets the intended purpose or the extent of the internal audit office to meet the desired results. Whereas The Institute of Internal Auditors (2010) defines the effectiveness of internal audits as degrees (including quality) that shape the objectives achieved. The internal audit effectiveness variables were measured using a 1 to 5 Likert scale (1 = strongly disagree and 5 = strongly agree). This variable is measured using indicators according to Tugiman (2006). The indicator is in line with the instrument developed by Aaron Cohen and Gabriel Sayag (2010).

###### 4.5.2.3 Quality of Internal Audit

Audit quality is how well the audit detects and reports material misstatements in financial statements (Arens et al., 2011). The head of internal audit must develop and maintain an insurance and quality improvement program that covers all aspects of internal audit activities (The Institute of Internal Auditors, 2012). Internal audit quality variables were measured using a 1 to 5 Likert scale (1 = strongly disagree and 5 = strongly agree). This variable is measured by indicators developed by Cohen and Sayag (2010) with instruments from Cohen and Sayag (2010) and International Standards for Professional Practice of Internal Audit.

4.5.2.4 Independence of the Internal Auditor Independence is free from situations that can threaten the ability of internal auditors to carry out impartial internal audit responsibilities. To achieve the level of

independence needed in order to carry out the responsibilities of internal audit activities, the Head of Internal Audit must have direct and unlimited access to Senior Management and the Board (The Institute of Internal Auditors, 2012). Independent variable internal audit was measured using a 1 to 5 Likert scale (1 = strongly disagree and 5 = strongly agree). This variable is measured by an instrument developed by Sawyer (2005). 4.5.2.5 Expertise of Internal Auditors The Institute of Internal Auditors (2012) states that the expertise of internal auditors is related to the knowledge, skills and other competencies needed in carrying out the duties and responsibilities of internal auditors. The head of internal audit must be able to guarantee that internal auditors have sufficient expertise to carry out assignments especially to internal auditors who still do not have much experience conducting audits. Each assignment must be properly supervised to ensure that targets are achieved, quality is guaranteed, and staff are educated. The level of supervision required depends on the ability and experience of the internal auditor and the complexity of the assignment. The head of the internal audit is fully responsible for supervising assignments, whether carried out by or for internal audit activities, but can also appoint experienced members of internal audit activities to carry out the audit. The expertise variables of internal auditors were measured using a 1 to 5 Likert scale (1 = strongly disagree and 5 = strongly agree). This variable is measured by indicators developed by Cohen and Sayag (2010) with instruments from Cohen and Sayag (2010) and International Standards for Professional Practice of Internal Audit.

#### 4.4 Data Analysis Techniques

The data analysis model used in this study is the SEM (Structural Equation Model). SEM is a multivariate technique that combines aspects of factor analysis and multiple regression that allow researchers to simultaneously examine a series of interrelated relationships between measured variables and latent constructs and between several latent constructs (Hair et al., 2009). Next, Ethical Hair. (2009) say that SEM can be considered as a unique combination of analytical techniques because SEM is based on two multivariate techniques, namely factor analysis and multiple regression analysis. The data analysis used in this study is the Partial Least Square (PLS) approach. PLS is a SEM equation model based on components or variants. According to Ghozali (2015), PLS is an alternative approach that shifts from a covariant-based SEM approach to a variant based. Covariance-based SEM generally tests causality / theory while PLS is more predictive model.

## V. RESULTS AND DISCUSSION

### 5.1 Description of Data

This research was conducted on internal auditors (Inspectorates) of the Municipality of Makassar, Gowa Regency, Pinrang Regency and the Inspectorate of the Municipality of Parepare. The selection of samples was carried out by sampling techniques with the requirements of Hair et al. (2009), namely the number of samples taken at least 5 times the number of indicators used in the study. This study uses 18 indicators, so the minimum number of samples that must be taken is  $18 * 5 = 98$ . The sample in this study was 120 internal auditors (Inspectorates) in the government of Makassar and Parepare municipalities and Gowa and Pinrang districts, so that the minimum number of samples was reached . The description of the sample in this study is shown in the following table 5.1.1.

**Table 5.11**

| Keterangan                                  | Jumlah                            |
|---|-----------------------------------|
| Jumlah kuesioner yang dikirim               | 120                               |
| Jumlah kuesioner yang tidak kembali         | 12                                |
| Jumlah kuesioner yang kembali               | 108                               |
| Jumlah kuesioner yang tidak dapat digunakan | 10                                |
| N sampel                                    | 98                                |
| Responden rate                              | $(98/120) \times 100\% = 81,67\%$ |

Sumber: Data Primer Diolah

The questionnaire that can be used in this study amounted to 98 filled by male respondents as many as 64 people (65%), while female respondents were 34 people (34%). This is because the majority of employees who occupy positions as internal auditors are indeed dominated by men. If it is related to the quality of internal

audit produced, the independence of internal auditors, the expertise of internal auditors, the effectiveness of internal audits, and GGG, the authors argue that there are no significant differences between men and women. This can be seen from the answers to the questionnaire given. Both men and women provide answers that are not much different.

Based on the age factor of respondents less than or equal to 25 years old (0%), respondents aged 26-30 years were 2 respondents (2%), aged 31-35 years as many as 29 respondents (30%), aged 36 -40 years as many as 36 respondents (37%), while more than 40 years were 31 respondents (31%). From these percentages, it can be concluded that the respondents who filled out this questionnaire were mostly in the productive age and still actively "plunged" directly to the audit process to the field.

Based on education levels, namely Diploma 3 as many as 4 respondents (4%), Strata 1 as many as 53 respondents (54%), and Strata 2 as many as 41 respondents (42%). This means that the respondents who filled out this questionnaire had adequate education and knowledge regarding the quality of internal audit, the independence of internal auditors, the expertise of internal auditors, the effectiveness of internal audits, and GCG. This also means that companies and banks in Makassar have good qualifications in the recruitment process by requiring a minimum S1 education to occupy positions as internal auditors. In addition, this indicates that the respondent has a good desire to continue to study and attend continuing education. This can be seen from 41 respondents who have taken S2 education.

While based on the period of service, which is 1-3 years experience as many as 10 respondents (10%), who have 4-5 years experience 5 respondents (5%), while those with more than 5 years are 83 respondents (85%). An experience of less than 1 year means that the auditor is still in the introduction stage of the work environment so that an understanding of the work still needs an adaptation process. 1-3 years experience is a category of novice auditors who do not have much experience and expertise. 4-5 years of experience, internal auditors have enough experience and expertise, but are not yet mature. In the 1-3 years and 4-5 years category, internal auditors do not have much experience and still have a lot to learn, but usually they are more idealistic and the text book in justification is related to their work as internal auditors. While internal auditors have experience of > 5 years, they have had a lot of experience and are already experts in their fields. So when justifying something related to their work as internal auditors, they are usually more able to provide policies. A summary of the characteristics of respondents can be seen in table 5.1.2.

**Table 5.1.2**  
Karakteristik Responden

| <b>Keterangan</b>          | <b>Jumlah</b> | <b>Persentase dari Seluruh Responden (%)</b> |
|----------------------------|---------------|--|
| Jumlah Sampel              | 98            |  |
| <b>Jenis Kelamin</b>       |               |  |
| 1. Pria                    | 64            | 65%  |
| 2. Wanita                  | 34            | 35%  |
| <b>Usia</b>                |               |  |
| 1. ≤ 25 tahun              | 0             | 0%   |
| 2. 26-30 tahun             | 2             | 2%   |
| 3. 31-35 tahun             | 29            | 30%  |
| 4. 36-40 tahun             | 36            | 37%  |
| 5. ≥ 41 tahun              | 31            | 31%  |
| <b>Pendidikan Terakhir</b> |               |  |
| 1. D3                      | 4             | 4%   |
| 2. Strata 1                | 53            | 54%  |
| 3. Strata 2                | 41            | 42%  |
| 4. Strata 3                | 0             | 0%   |
| <b>Lama Bekerja</b>        |               |  |
| 1. < 1 tahun               | 0             | 0%   |
| 2. 1-3 tahun               | 10            | 10%  |
| 3. 4-5 tahun               | 5             | 5%   |
| 4. > 5 tahun               | 83            | 85%  |

Sumber : Data Primer diolah

5.2 Descriptive Analysis

**Tabel 5.2.1**

Descriptive Statistics

|                    | N  | Minimum | Maximum | Sum    | Mean   | Std. Deviation |
|--------------------|----|---------|---------|--------|--------|----------------|
| EAI                | 98 | 2.8     | 5.00    | 394.60 | 4.0265 | .39605         |
| KualitasAI         | 98 | 2.93    | 4.93    | 397.00 | 4.3128 | .45234         |
| KeahlianAI         | 98 | 3.33    | 5.00    | 405.33 | 4.1361 | .35525         |
| IndependensiAI     | 98 | 2.9     | 5.00    | 409.30 | 4.1765 | .42833         |
| GCG                | 98 | 2.27    | 4.77    | 398.73 | 4.0686 | .41784         |
| Valid N (listwise) | 98 |         |         |        |        |                |

Sumber: Data Primer Diolah

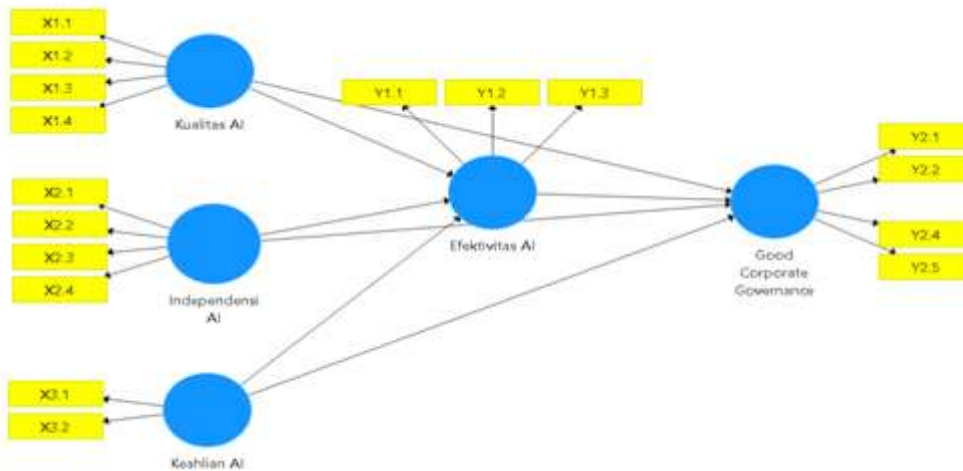
The effectiveness of internal audits was measured using a 1 to 5 Likert scale (1 = strongly disagree and 5 = strongly agree). This variable is measured by indicators of feasibility of findings and recommendations, early warning, professionalism of internal auditors, and achievement of inspection programs. The feasibility indicators of findings and recommendations are measured by 5 statements, early warning is measured by 3 statements, internal auditor professionalism is measured by 3 statements, and the achievement of the audit program is measured by 4 statements. Table 5.2.1 shows descriptive statistics, namely the answers of 98 internal auditors in the city of Makassar. The research sample produced an average answer to the effectiveness of internal audit of 4.02 with a standard deviation of 0.39. Of the 98 samples that have been observed, it shows that the highest answer value (maximum) is 5, which means it is very agreeable to the statement contained in the questionnaire while the lowest answer value (minimum) is 2.8 which means it tends to agree with the statements contained in the questionnaire.

The quality of internal audit was measured using a 1 to 5 Likert scale (1 = strongly disagree and 5 = strongly agree). This variable is measured by audit planning indicators, audit area, audit implementation, and communication of audit results. Audit planning indicators are measured by 3 statements, audit area is measured by 3 statements, audit implementation is measured by 5 statements, and communication of audit results measured by 3 statements. Table 5.2.1 shows descriptive statistics, namely the answers of 98 internal auditors in the city of Makassar. The research sample produced an average answer to the internal audit quality of 4.31 with a standard deviation of 0.45. Of the 98 samples that have been observed, it shows that the highest answer value (maximum) is 4.93 which means it is very agreeable to the statement contained in the questionnaire while the lowest answer value (minimum) is 2.93, which means it tends to agree with the statement contained in the questionnaire. The expertise of internal auditors was measured using a 1 to 5 Likert scale (1 = strongly disagree and 5 = strongly agree). This variable is measured by indicators of increasing expertise and education. Indicators of skill improvement are measured by 3 statements and education is measured by 3 statements. Table 5.2.1 shows descriptive statistics, namely the answers of 98 internal auditors in the city of Makassar. The research sample produced an average answer to the expertise of the internal auditor at 4.13 with a standard deviation of 0.35. Of the 98 samples that have been observed, it shows that the highest answer value (maximum) is 5, which means it is very agreeable to the statement contained in the questionnaire while the lowest answer value (minimum) is 3.33 which means neutral to the statement contained in the questionnaire. Independence of internal auditors was measured using a 1 to 5 Likert scale (1 = strongly disagree and 5 = strongly agree). This variable is measured by indicators of independence in planning, independence in verification, and independence in reporting. Independence indicators in planning are measured by 3 statements, independence in verification is measured by 3 statements, and independence in reporting is measured by 4 statements. Table 5.2.1 shows descriptive statistics, namely the answers of 98 internal auditors in the city of Makassar. The research sample produced an average answer to the independence of the internal auditor of 4.17 with a standard deviation of 0.42. From the 98 samples observed, the value of the answer highest (maximum) of 5 which means very agree with the statement found in the questionnaire while the lowest answer value (minimum) is 2.9 which means it tends to agree to the statement contained in the questionnaire. Good Corporate governance is measured using a 1 to 5 Likert scale (1 = strongly disagree and 5 = strongly agree). This variable is measured by indicators of transparency, accountability, accountability, independence, and fairness. Transparency indicators are measured by 6 statements, accountability is measured by 6 statements, accountability is measured by 3 statements, independence is measured by 3 statements, and fairness is measured by 4 statements. Table 5.2.1 shows descriptive statistics, namely the answers of 98 internal auditors in the city



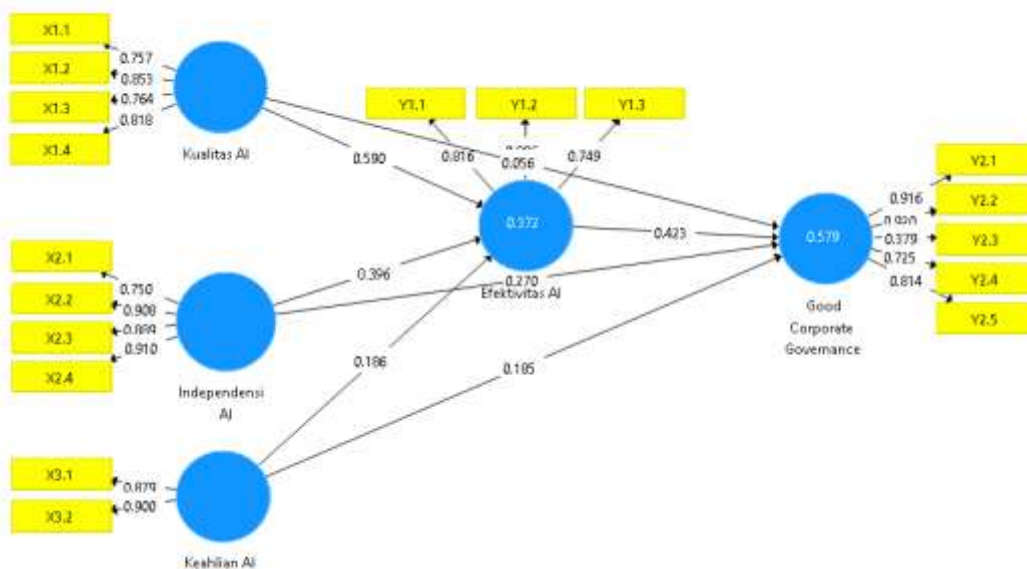
of Makassar. The research sample produced an average answer to the independence of internal auditors of 4.06 with a standard deviation of 0.41. Of the 98 samples that have been observed, it shows that the highest answer value (maximum) is 4.77 which means it is very agreeable to the statement contained in the questionnaire while the lowest answer value (minimum) is 2.27 which means it tends to agree to the statements contained in the questionnaire.

5.3 Data Analysis



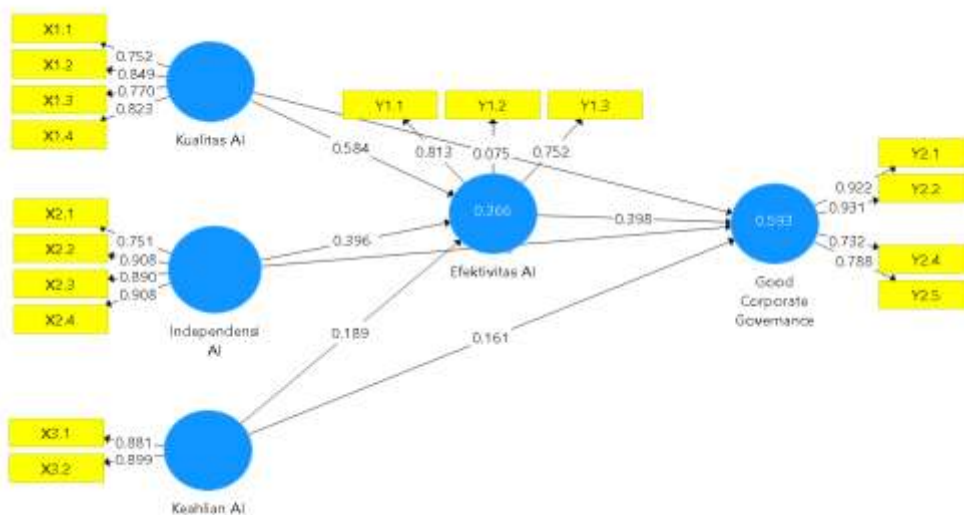
**Figure 5.1** Structural Model

Before testing hypotheses to predict relational relationships in a structural model, testing the measurement model must first be used to verify indicators and latent variables that can be tested later. The results of the algorithm can be seen in the form of research data models that display loading scores (outer loading) By using Smart PLS then the model is executed using PLS Algorithm. Following is the display of PLS Algorithm.



**Figure 5.2** Display of PLS Algorithm Results

Judging from the results of the PLS Algorithm above, the independence indicator in reporting has a correlation value below 0.7. Therefore, the INDP3 indicator is removed from the model because it is not significant. The GGG3 indicator with a correlation value of 0.67 is not excluded from the model because in the research stage of development, the loading scale of 0.5 to 0.6 is still acceptable (Ghozali, 2015: 37). Next, re-estimate the model by removing the independence indicators in reporting. The results of the SmartPLS graph output are shown in Figure 5.2, which has fulfilled the convergent validity because all factorloading is above 0.5.



**Figure 5.3** Display of Re-estimated Results through PLS Algorithm

### 5.3.1 Assessing the Outer Model or Measurement Model

#### 5.3.1.1 Test Validity

Convergent validity of the measurement model with reflexive indicators can be seen from the correlation between indicator scores considered valid if they have a correlation value above 0.7. However, in the stages of development the loading scale of 0.5 to 0.6 is still acceptable (Ghozali, 2015: 37). The output of the correlation between indicators and constructs can be seen in Figure 5.3 above or in the following table 5.3.1.

**Tabel 5.3.1**

Hasil Outer Loadings

| Variabel                  | Indikator | Loading Factor |
|---------------------------|-----------|----------------|
| Kualitas AI               | X1.1      | 0.752          |
|                           | X1.2      | 0.849          |
|                           | X1.3      | 0.770          |
|                           | X1.4      | 0.823          |
| Independensi AI           | X2.1      | 0.751          |
|                           | X2.2      | 0.908          |
|                           | X2.3      | 0.890          |
|                           | X2.4      | 0.908          |
| Keahlian AI               | X3.1      | 0.881          |
|                           | X3.2      | 0.899          |
| Efektivitas AI            | Y1.1      | 0.813          |
|                           | Y1.2      | 0.887          |
|                           | Y1.3      | 0.752          |
| Good Corporate Governance | Y2.1      | 0.922          |
|                           | Y2.2      | 0.931          |
|                           | Y2.4      | 0.732          |
|                           | Y2.5      | 0.788          |

Sumber: Data Primer Diolah

The value of outer loadings in table 5.3.1 shows that there is a good convergence validity seen from the loading factor having a value above 0.50. In addition, the value of Average Variance Extracted (AVE) can be used to assess convergent validity. The AVE value of each construct value is greater than 0.5. In table 5.3.2, AVE values will be presented for all variables.

**Tabel 5.3.2**

Average Variance Extracted (AVE)

| Variabel        | AVE   |
|-----------------|-------|
| Efektivitas AI  | 0.671 |
| GGG             | 0.719 |
| Independensi AI | 0.751 |
| Keahlian AI     | 0.792 |
| Kualitas AI     | 0,640 |

Sumber: Data Primer Diolah

Based on table 5.3.2 above it can be concluded that all constructs meet the criteria of convergent validity. This is indicated by the AVE value for all constructs above 0.50, as recommended criteria. The value of cross loadings in table 5.3.3 shows good discriminant validity. This can be seen from the indicator correlation value of the construct higher than the value of the indicator correlation with other constructs. As an illustration, the loading factor of GGG with GGG2 is 0.719. This amount is higher than the loading factor of GGG2 with other constructs, namely Internal Audit Effectiveness of 0.671, Internal Auditor Independence of 0.751, Internal Auditor Skills of 0.792 and Internal Audit Quality of 0.640. This shows that the latent construct has good discriminant validity.

**Tabel 5.3.3**

Cross Loadings

|      | Efektivitas AI | GGG          | Independensi AI | Keahlian AI  | Kualitas AI  |
|------|----------------|--------------|-----------------|--------------|--------------|
| X1.1 | 0              | 0            | 0               | 0            | <b>0.752</b> |
| X1.2 | 0              | 0            | 0               | 0            | <b>0.849</b> |
| X1.3 | 0              | 0            | 0               | 0            | <b>0.77</b>  |
| X1.4 | 0              | 0            | 0               | 0            | <b>0.823</b> |
| X2.1 | 0              | 0            | <b>0.751</b>    | 0            | 0            |
| X2.2 | 0              | 0            | <b>0.908</b>    | 0            | 0            |
| X2.3 | 0              | 0            | <b>0.89</b>     | 0            | 0            |
| X2.4 | 0              | 0            | <b>0.908</b>    | 0            | 0            |
| X3.1 | 0              | 0            | 0               | <b>0.881</b> | 0            |
| X3.2 | 0              | 0            | 0               | <b>0.899</b> | 0            |
| Y1.1 | <b>0.813</b>   | 0            | 0               | 0            | 0            |
| Y1.2 | <b>0.887</b>   | 0            | 0               | 0            | 0            |
| Y1.3 | <b>0.752</b>   | 0            | 0               | 0            | 0            |
| Y2.1 | 0              | <b>0.922</b> | 0               | 0            | 0            |
| Y2.2 | 0              | <b>0.931</b> | 0               | 0            | 0            |
| Y2.4 | 0              | <b>0.732</b> | 0               | 0            | 0            |
| Y2.5 | 0              | <b>0.788</b> | 0               | 0            | 0            |

### 5.3.1.2 Reliability Test

In addition to the construct validity test a construct reliability test is also measured by the composite reliability of the indicator block that measures the construct. The results are as follows:

**Tabel 5.3.4**

Composite Reliability

| Variabel        | Composite Realiability |
|-----------------|------------------------|
| Efektivitas AI  | 0.859                  |
| GCG             | 0.866                  |
| Independensi AI | 0.890                  |
| Keahlian AI     | 0.738                  |
| Kualitas AI     | 0.817                  |

Sumber: Data Primer Diolah

Constructs are declared reliable if they have a composite reliability value above 0.70. The output of SmartPLS shows that all constructs have a composite reliability value above 0.70. So, it can be concluded that the construct has good reliability. 6.3.2 Testing of Structural Models (Inner Model) Testing the inner model or structural model is done to see the relationship between constructs, significance values and R-square of the research model. The structural model was evaluated using R-square which is a model of goodness-fit. In assessing the model with PLS it starts by looking at the R-square for each dependent latent variable. Table 5.3.5 is the result of the R-square estimation using SmartPLS.

Tabel 5.3.5

R-square Adjusted

| Variable         | R-square Adjusted |
|------------------|-------------------|
| Effectiveness AI | 0,346             |
| GCG              | 0,576             |

Sumber: Data Primer Diolah

Table 5.3.5 shows the R-square value for the internal audit effectiveness variable obtained at 0.346. These results indicate that 34.6% of the effectiveness of internal audit variables can be influenced by variables of internal audit quality, internal auditor independence, and internal auditor expertise while 65.4% are influenced by other variables other than those studied. The R-square value for the GCG variable was obtained at 0.576. These results indicate that 57.6% of the GCG variable can be influenced by internal audit quality variables, internal auditor independence, internal auditor expertise, and internal audit effectiveness while 42.4% are influenced by other variables outside of those examined.

### 5.3.3 Hypothesis Testing

The basis used in testing hypotheses is the value found in the output path coefficients. Table 5.3.6 provides an estimated output for testing hypotheses.

**Tabel 5.3.6**

Path Coefficient

|                                   | Original Sample (O) | T Statistics ((O/STDEV)) | P Values | Signifikansi Variabel |
|-----------------------------------|---------------------|--------------------------|----------|-----------------------|
| Kualitas AI -> Efektivitas AI     | 0.592               | 8.152                    | 0.000    | Positif, Signifikan   |
| Keahlian AI -> Efektivitas AI     | 0.505               | 6.600                    | 0.000    | Positif, Signifikan   |
| Independensi AI -> Efektivitas AI | 0.396               | 3.895                    | 0.000    | Positif, Signifikan   |
| Kualitas AI -> GGG                | 0.380               | 8.152                    | 0.004    | Positif, Signifikan   |
| Independensi AI -> GGG            | 0.434               | 3.185                    | 0.002    | Positif, Signifikan   |
| Keahlian AI -> GGG                | 0.584               | 7.691                    | 0.000    | Positif, Signifikan   |
| Efektivitas AI -> GGG             | 0.398               | 4.274                    | 0.000    | Positif, Signifikan   |

Sumber: Data Primer Diolah

In PLS testing statistically each hypothesized relationship is carried out using simulation. In this case the bootstrapping method is performed on the sample. Testing with bootstrapping is also intended to minimize the problem of research data abnormalities. The results of testing with bootstrapping from PLS analysis are as follows.

5.3.3.1 Testing of H1 Hypotheses (The quality of internal audit has a positive effect on the effectiveness of internal audits) Hypothesis 1 which states that internal audit quality has a positive effect on the effectiveness of proven internal audits. This is because the results of testing hypothesis 1 show that the relationship of the variable internal audit quality to the effectiveness of internal audit shows the path coefficient value of 0.592 with a t value of 8.152. This value is greater than t-table (1.96). This means that internal audit quality has a positive effect on the effectiveness of internal audits. Thus hypothesis 1 is accepted.

6.3.3.2 Testing of H2 Hypotheses (Internal auditor expertise influences positive for the effectiveness of internal audits)

Hypothesis 2 which states that the expertise of internal auditors has a positive effect on the effectiveness of proven internal audits. This is because the results of testing hypothesis 2 indicate that the relationship of the internal audit expertise variable with the effectiveness of internal audit shows the path coefficient value of 0.505 with a t value of 6.600. This value is greater than t-table (1.96). This means that internal audit expertise has a positive effect on the effectiveness of internal audits. Thus hypothesis 2 is accepted.

6.3.3.3 Testing of Hypothesis H3 (Independence of internal auditor influences positive for the effectiveness of internal audits)

Hypothesis 3 states that the independence of internal auditors has a positive effect on the effectiveness of proven internal audits. This is because the results of testing hypothesis 3 indicate that the relationship of the variables of internal auditor independence with the effectiveness of internal audit shows the path coefficient value of 0.396 with a t value of 3.895. This value is greater than t-table (1.96). This means that the independence of internal audit has a positive effect on the effectiveness of internal audits. Thus hypothesis 3 is accepted.

5.3.3.4 Testing of Hypothesis H4 (Quality of internal audit has a positive effect against GGG) Hypothesis 4 which states that the quality of internal audit has a positive effect on proven GGG. This is because the results of testing hypothesis 4 indicate that the relationship of the variable internal audit quality with the effectiveness of internal audit shows the path coefficient value of 0.380 with a t value of 8.152. This value is greater than t-table (1.96). This means that the quality of internal audit has a positive effect on GGG. Thus hypothesis 4 is accepted.

5.3.3.5 Testing of Hypothesis H5 (Independence of internal auditor influences positive for GGG)

Hypothesis 5 which states that the independence of internal auditors has a positive effect on proven GGG. This is because the results of testing hypothesis 5 indicate that the relationship of the variables of internal auditor independence with GCG shows the path coefficient value of 0.434 with a t value of 3.185. This value is greater than t-table (1.96). This means that the independence of internal auditors has a positive effect on GCG. Thus hypothesis 5 is accepted.

#### 5.3.3.6 Hypothesis Testing H6 (Internal auditor expertise has a positive effect against GGG)

Hypothesis 6 which states that the expertise of internal auditors has a positive effect on proven GGG. This is because the results of testing hypothesis 6 indicate that the relationship between the variable expertise of internal auditors and GGG shows the path coefficient value of 0.584 with a t value of 7.691. This value is greater than t-table (1.96). This means that the expertise of internal auditors has a positive effect on GGG. Thus hypothesis 6 is accepted.

#### 5.3.3.7 Testing of the H7 Hypothesis (The effectiveness of internal audit has a positive effect against GGG)

Hypothesis 7 which states that the effectiveness of internal audit has a positive effect on proven GGG. This is because the results of testing hypothesis 7 indicate that the relationship of the effectiveness of the internal audit variable with GGG shows the path coefficient value of 0.398 with a t value of 4.274. This value is greater than t-table (1.96). This means that the effectiveness of internal audit has a positive effect on GGG. Thus hypothesis 7 is accepted.

### 5.4 Discussion

#### 5.4.1 Effect of Internal Audit Quality on the Effectiveness of Internal Audit

Based on the results of statistical calculations that have been done, it can be concluded that the quality of internal audit has a positive effect on the effectiveness of internal audits. Thus, the H1 hypothesis in this study was accepted. This research is consistent with the results of a study conducted by Anto et al. (2016), Tackie et al. (2016), Mahzan and Hassan (2015), and Mihret and Yismaw (2007). Anto et al. (2016) found that the quality of audit work had a positive effect on the effectiveness of government internal audits. In line with the study, Tackie et al. (2016), Mahzan and Hassan (2015), and Mihret and Yismaw (2007) found that internal audit quality has a significant effect on the effectiveness of internal audits. The results of this study indicate that the higher the quality of internal audit, the higher the effectiveness of internal audit in an organization. The results of this study are in accordance with agency theory and stakeholder theory. Internal audit is important in a company and bank. With the existence of a quality internal audit report, information from agents who have gone through the audit process and submitted to the principal becomes information that is able to produce the right decisions. So that the information gap between principals and agents can be overcome. In addition, the information contained in quality internal audit reports is also used by stakeholders who have an interest in the company and the bank in decision making. The Institute of Internal Auditors (2012) provides criteria for internal audit activities that have been managed effectively, one of which is the results of the work of internal audit activities achieving the objectives and responsibilities as stated in the internal audit charter. In line with this, the Government Internal Auditor Association (2013) states that effective internal audits can be realized if supported by results. increasingly qualified internal audit. So it can be concluded that audit quality has an effect on the effectiveness of internal audits.

#### 5.4.2 Effect of Internal Auditor Independence on the Effectiveness of Internal Audit

Based on the results of statistical calculations that have been done, it can be concluded that the construct of the independence of internal auditors has a positive effect on the effectiveness of internal audits. Thus, the H3 hypothesis in this study was accepted. This research is consistent with the results of a study conducted by Anto et al. (2016), Misganaw (2016), Baharuddin et al. (2014), and Cohen and Sayag (2010). The results of the study by Anto et al. (2016) found that audit entity organizational independence had a positive effect on the effectiveness of government internal audits. Misganaw (2016) also found that the independence of internal auditors had a positive effect on the effectiveness of internal audits in Ethiopian commercial banks. Baharuddin et al. (2014) found that independence had a positive and significant effect on the effectiveness of internal audits. Similarly, the results of Cohen's and Sayag's (2010) study found that the higher the level of independence of the organization, the higher the effectiveness of internal audits. Therefore, the results of this study indicate that the higher the independence of internal auditors, the higher the effectiveness of internal audits in an organization.

The results of this study are in accordance with attribution theory and agency theory. Attribution theory explains the understanding of a person's reaction to events around them, knowing their reasons for the events experienced. Independence of internal auditors plays an important role in the effectiveness of internal audits. By using attribution theory as a reference, it is expected that internal auditors always maintain their independent attitude in carrying out the internal audit process. This is important because if the independence of an internal auditor is disrupted, the internal audit results will be ineffective in making decisions. Conversely, if the internal auditor is free to give his opinion without any intervention from any party, then the results of his internal audit will be effectively used in decision making because it is based on valid and accountable data.

In addition, by using agency theory as a reference, it is expected that the independent attitude possessed by auditors can reduce the information gap between principals and agents. The independent attitude

of this internal auditor includes the freedom to convey his opinion on matters that occur in an organization and the freedom to report anyone who is indicated to commit unethical actions that harm the organization. So that the internal audit process can run well and the internal audit report can be an effective report to be used in decision making.

Internal audit activities have been managed effectively when individuals participating in internal audit activities demonstrate compliance with codes of ethics and standards (The Institute of Internal Auditors, 2012). Internal audit standards require internal auditors to be independent in conducting assignments including providing independent and objective assurance and consultancy services so as to be able to provide added value and improve organizational operations.

#### 5.4.3 Effect of Internal Auditor Expertise on the Effectiveness of Internal Audit

Based on the results of statistical calculations that have been done, it can be concluded that the construct of the expertise of internal auditors has a positive effect on the effectiveness of internal audits. Thus, the H2 hypothesis in this study was accepted. The results of this study are consistent with research conducted by Anto et al., Misganaw (2016), Mahzan and Hassan (2015), Baharuddin et al. (2014), Hailemariam (2014), and Ramachandran et al. (2012). Research conducted by Anto et al. (2016) found that the professional expertise of internal auditors had a positive effect on the effectiveness of government internal audits. Misganaw (2016) found that the competence of internal auditors had a positive effect on the effectiveness of internal audits in Ethiopian commercial banks. In line with that, Mahzan and Hassan's (2015) study found that internal audit staff who have good competency have a positive effect on audit effectiveness internal. Baharuddin et al. (2014) also found that auditor competence has a positive effect on the effectiveness of internal audits. Hailemariam (2014) found that the presence of adequate and competent internal audit staff in public sector offices positively and significantly affected the effectiveness of internal audits. Research by Ramachandran et al. (2012) also found that the competence of the internal audit team had a positive relationship to the effectiveness of internal audits in Tanzanian commercial banks.

The results of this study are in accordance with attribution theory and agency theory. Attribution theory explains the understanding of a person's reaction to events around them, knowing their reasons for the events experienced. The expertise of internal auditors plays an important role in the effectiveness of internal audits. By using attribution theory as a reference, it is expected that the expertise possessed by internal auditors, such as education, knowledge, technological capabilities, experience, etc., are used properly and carried out in accordance with applicable internal audit standards. In addition, the expertise of internal auditors is a guarantee for the organization that the ongoing audit process will be completed properly. This is in line with the statement of Salsabila and Prayudiawan (2011) which states that audit knowledge possessed by auditors will influence the selection of errors and detect risks during the audit process, so that good output can be generated and can be used as material for decision making by interested parties. In addition, by using agency theory as a reference, internal auditors who have expertise are expected to be able to reduce information gaps between principals and agents by using their expertise in detecting risks, fraud, window dressing efforts, and other unethical actions that may be carried out by agents to personal or group interests. Therefore, to produce an effective internal audit, internal auditors who have expertise are needed.

The Institute of Internal Auditors (2012) states that assignments must be carried out using professional skills / expertise and precision (due professional care). The head of internal audit must be able to guarantee that internal auditors have sufficient expertise to carry out assignments especially to internal auditors who still do not have much experience conducting audits. The Institute of Internal Auditors (2012) revealed that each assignment must be properly supervised to ensure that targets are achieved, quality is guaranteed, and staff are educated. The level of supervision required depends on the ability and experience of the internal auditor and the complexity of the assignment. So, it can be concluded that internal auditors who have adequate education but do not have a lot of audit experience, can carry out internal audit activities under the supervision and supervision of a senior auditor or head of internal audit so that internal audit activities become effective. 5.4.4 Effect of Internal Audit Quality on GGG

Based on the results of statistical calculations that have been done, it can be concluded that the quality of internal audit has an effect on GGG. Thus, the H4 hypothesis in this study was accepted. This research is not in line with the research conducted by Rahmawati (2015) which states that financial audits and performance audits conducted by internal auditors do not have a significant effect on the implementation of GGG. The results of this study are consistent with stakeholder theory. Stakeholder theory states that all stakeholders have the right to provide information about how organizational activities affect them, even when they choose not to use that information and even when they cannot directly play a constructive role in the survival of the organization. So that it requires a quality audit report that can be used by stakeholders, especially stakeholders who have a direct interest with companies and banks in decision making.

#### 5.4.5 Effect of Internal Auditor Independence on GGG

Based on the results of statistical calculations that have been done, it can be concluded that the independence of internal auditors has a positive effect on GGG. Thus, the H5 hypothesis in this study was accepted. This research is consistent with the results of research conducted by Edwin (2013) and Herman et al. (2013). Edwin (2013) found that the independence of internal auditors had a positive effect on GGG and Herman et al. (2013) which states that the independence of internal auditors has a significant effect on GGG. The results of this study indicate that the higher the independence of internal auditors, the higher the GGG in an organization.

The results of this study are in accordance with attribution theory and stakeholder theory. Attribution theory explains the understanding of a person's reaction to events around them, knowing their reasons for the events experienced. Independence of internal auditors plays an important role in GGG. By using attribution theory as a reference, it is expected that internal auditors maintain an independent attitude from conflict of interest that can lead to unethical behavior so that it can damage trust in internal auditors, activities, and the internal audit profession. Therefore, it is expected that internal auditors always understand that an independent attitude must be maintained so that the audit report to be used by stakeholders is free from biased information. In addition, by using stakeholder theory as a reference, the independent attitude of internal auditors is intended to provide a balance of information to all stakeholders. It aims to maintain the rights of stakeholders to obtain unbiased information so that it can be used as a reference for decision making. Therefore, it can be concluded that the independence of internal auditors can contribute to the application of the principles of GGG, namely transparency, accountability, accountability, independence and fairness in an organization.

#### 5.4.6 Effect of Internal Auditor Expertise on GGG

Based on the results of statistical calculations that have been done, it can be concluded that the expertise of internal auditors has a positive effect on GGG. Thus, the H6 hypothesis in this study was accepted. This research is consistent with the results of research conducted by Herman et al. (2013), Al-Jabali et al. (2011), and Sarens et al. (2006). The results of the study stated that the expertise of internal auditors had a positive effect on GGG. The results of this study indicate that the higher the expertise of internal auditors, the higher the GGG in an organization.

The results of this study are in accordance with attribution theory and stakeholder theory. Attribution theory explains the understanding of one's reactions to events around them, knowing their reasons for the events experienced. The expertise of internal auditors plays an important role in the GGG. By using attribution theory as a reference, it is expected that the expertise of internal auditors will be used in accordance with internal audit standards and applicable regulations in an organization. So that the expertise possessed is used to provide recommendations that can improve organizational performance and realize GGG. In addition, with the theory of using stakeholder theory as a reference, it is expected that the expertise of internal auditors is able to provide stakeholder rights, namely to obtain the same information and be reliable in decision making. Furthermore, the auditor's expertise is used to assess and provide appropriate recommendations for increasing GGG in the organization. Therefore, it can be concluded that the increasing expertise of internal auditors, the more GGG increases.

#### 5.4.7 Effect of the Effectiveness of Internal Audit on GGG

Based on the results of statistical calculations that have been done, it can be concluded that the effectiveness of internal audit has a positive effect on GGG. Thus, the H7 hypothesis in this study was accepted. This research is consistent with the results of research conducted by Rahmatika (2014), Hutabarat and Rudito (2013), Wangui (2012), Njanike et al. (2011), and Karagiorgos et al. (2010). Research on the relationship of the effectiveness of internal audit to GGG has been carried out by Rahmatika (2014), Hutabarat and Rudito (2013), Wangui (2012), Njanike et al. (2011), and Karagiorgos et al. (2010). Rahmatika (2014), Wangui (2012), and Karagiorgos et al. (2010) found that the effectiveness of internal audit has a significant effect on GGG. Hutabarat and Rudito (2013) found that the effectiveness of internal audit has a positive influence on GGG. Njanike et al. (2011) found that the effectiveness of the internal control system contributed to the increase in GGG. The results of this study indicate that GGG in companies and banks in the city of Makassar is influenced by effectiveness.

#### 5.5 Testing of Mediation Effects

Testing the effect of intervening variables or also called indirect effect testing aims to determine the position of the intervening variable in this study is the effectiveness of internal audit. According to Baron and Kenny (1986), the process of examining the internal audit effectiveness variable in determining the type of mediation whether partial mediation, full mediation (complete mediation), or no mediation is done by:

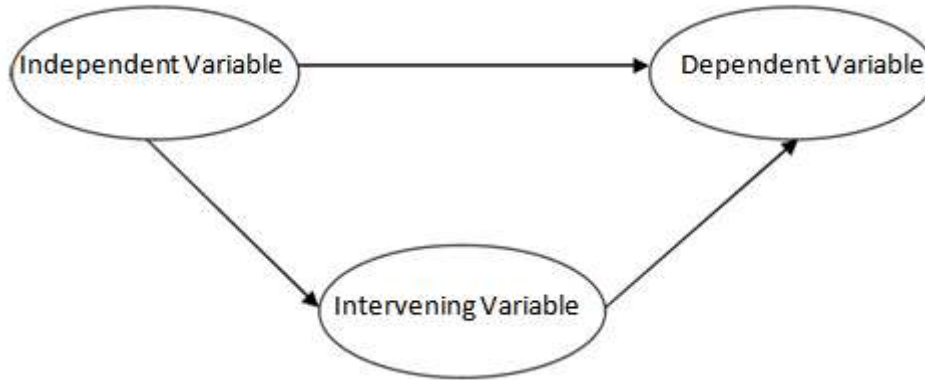


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1. Estimating the direct effect of independent variables on the dependent variable, the coefficient  $c$  must be significant.



2. Estimating simultaneous indirect effects, path coefficients the influence of independent variables on intervening variables ( $a$ ) and the effect of intervening variables on the dependent variable ( $b$ ) must be significant.



Taking conclusions about the effects of mediation (Baron and Kenny, 1986) is:

1. If the path coefficient  $c'$  from the results of the second step estimate remains significant and does not change ( $c' = c$ ) then there is no mediating effect.
2. If the path coefficient  $c'$  value decreases ( $c' < c$ ) but remains significant then the form of mediation is partial mediation.
3. If the path coefficient  $c'$  value drops ( $c' < c$ ) and becomes insignificant then the form of mediation is full mediation (full mediation).

The results of the two steps of Baron and Kenny (1986) to examine the effectiveness of internal audit variables in determining the type of mediation are shown in tables 5.10 and 5.11 below.

**Tabel 5.10**  
Hasil Uji Pengaruh tanpa Menggunakan Variabel Intervening EAI

|                        | Original<br>Sample (O) | Sampel<br>Mean (M) | Standard<br>Deviation<br>(STDE) | T Statistics<br>( O/STDEV ) | P<br>Values |
|------------------------|------------------------|--------------------|---------------------------------|-----------------------------|-------------|
| Kualitas AI -> GGG     | 0.380                  | 0.386              | 0.121                           | 3.153                       | 0.002       |
| Independensi AI -> GGG | 0.434                  | 0.439              | 0.136                           | 3.185                       | 0.002       |
| Keahlian AI -> GGG     | 0.584                  | 0.579              | 0.076                           | 7.691                       | 0.000       |

Sumber: Data Primer Diolah

**Tabel 5.11**  
Hasil Uji Pengaruh dengan Menggunakan Variabel Intervening EAI

|  | Original<br>Sample (O) | Sampel<br>Mean (M) | Standard<br>Deviation<br>(STDE) | T Statistics<br>( O/STDEV ) | P<br>Values |
|--|------------------------|--------------------|---------------------------------|-----------------------------|-------------|
| Kualitas AI ->Efektifitas AI->Good<br>Government Governance      | 0.250                  | 0.250              | 0.096                           | 2.609                       | 0.009       |
| Keahlian AI ->Efektifitas AI-><br>Good Government Governance     | 0.262                  | 0.263              | 0.058                           | 4.503                       | 0.000       |
| Independensi AI ->Efektifitas AI-><br>Good Government Governance | 0.184                  | 0.191              | 0.083                           | 2.207                       | 0.028       |

Sumber: Data Primer Diolah

#### 5.5.1 Effect of Internal Audit Quality on GGG through Effectiveness Internal

Audit Based on table 5.11, it can be seen that the path coefficient value of moderation of AI Effectiveness on Goof Government Governance is 0.250 and the value of P is 0.009. This shows that the effectiveness of Internal Audit is able to mediate the relationship between the Quality of Internal Audit to Good Government Responsibility. The results of this test mean that the influence of internal audit quality can affect GGG only through the effectiveness of internal audits.

Research on the effect of internal audit effectiveness on GGG was carried out by Rahmatika (2014), Hutabarat and Rudito (2013), Wangui (2012), Njanike et al. (2011), and Karagiorgos et al. (2010). Their research found that the effectiveness of internal auditing had a significant effect on GGG. The results of this study are in accordance with agency theory and stakeholder theory. From the point of view of agency theory, information obtained from effective internal audits will be able to eliminate information gaps between principals and agents so that principals are able to make the right decisions for organizational improvement, performance improvement, and improvement of governance processes within the organization. From the perspective of stakeholder theory, stakeholders have the right to obtain the same information so that effective GCG is needed to realize GCG. To get an effective internal audit, one of them is obtained through the results of a quality internal audit. This is in line with performance standards in the International Standards of Professional Practice of Internal Audit (2012) which states that internal audit activities have been managed effectively when the results of internal audit activity work achieve the objectives and responsibilities as stated in the internal audit charter. In line with that, the Indonesian Government Internal Audit Standard (2013) states that the role of an effective internal audit can be realized if it is supported by increasingly qualified internal audit results. Therefore, it can be concluded that the internal audit quality has an effect on GCG through the effectiveness of internal audits.

#### 5.5.2 Effect of Internal Auditor Independence on GGG through Effectiveness Internal Audit

Based on table 5.11, it can be seen that the path coefficient value of the moderation of AI Effectiveness on Goof Government Governance is 0.184 with a P value of 0.028. This shows that the effectiveness of Internal Audit is able to mediate the relationship between the Independence of Internal Auditors on Good Government Responsibility. The results of this test mean that the influence of the independence of internal auditors can influence GGG through the effectiveness of internal audits.

Research on the influence of independent internal auditors on GCG conducted by Edwin (2013) found that the independence of internal auditors had a positive effect on GGG and Herman et al. (2013) which states that the independence of internal auditors has a significant effect on GGG. Research on the independence of internal auditors influencing the GGG was carried out by Anto et al. (2016), Misganaw (2016), Baharuddin et al. (2014), and Cohen and Sayag (2010). The results of their study found that the independence of internal auditors had a positive effect on the effectiveness of internal audits. The results of this study are in accordance with attribution theory, stakeholder theory, and agency theory. Attribution theory explains the understanding of a person's reaction to events around them, knowing their reasons for the events experienced. Independence of internal auditors plays an important role in the effectiveness of internal audit and GGG. When associated with attribution theory, internal auditors are independent with the aim of delivering audit reports that are reliable and free from intervention from any party. Thus, internal results become effective for stakeholders to use in decision making. In addition, if it is associated with stakeholder theory which states that stakeholders have the right to obtain unbiased information, then internal auditors are required to have an independent attitude in conducting the audit process. This is important because it will produce an effective internal audit used in decision making. The more transparent the internal auditor conveys the condition of the organization, the more effective the decisions that stakeholders will make to improve the organization in the future. In addition, when associated with agency theory, the independent attitude of the auditor is able to reduce the information gap between the principal and the agent by expressing his opinion on matters that occur in an organization and reporting anyone who is indicated to commit unethical actions that harm the organization. So that the internal audit process can run well and Internal audit reports can be effective reports to be used in decision making. Therefore, it was concluded that the independence of internal auditors had an effect on GGG through the effectiveness of internal audits.

#### 5.5.3 Effect of Internal Auditor Expertise on GGG through Audit Effectiveness Internal

Based on table 5.11, it can be seen that the Internal Audit Expertise coefficient value for Good Government Governance mediated by the Effectiveness of Internal Audit is 0.262 and the P Values value indicates 0.000 which means that AI Effectiveness is able to mediate the relationship between Internal Audit Independence and Good Government Responsibility. The results of this test mean that the influence of the expertise of internal auditors can influence GGG and can also be through the effectiveness of internal audits.

Research on the expertise of internal auditors influencing the GGG has been carried out by Herman et al. (2013), Al-Jabali et al. (2011), and Sarens et al. (2006). The results of the study stated that the expertise of internal auditors had a positive effect on GGG. Research on the influence of internal auditor expertise on the effectiveness of internal audits has been carried out by Anto et al., Misganaw (2016), Mahzan and Hassan (2015), Baharuddin et al. (2014), Hailemariam (2014), and Ramachandran et al. (2012). The results of their study found that the professional expertise of internal auditors had a positive effect on the effectiveness of internal audits.

The results of this study are in accordance with attribution theory and stakeholder theory. Attribution theory explains the understanding of a person's reaction to events around them, knowing their reasons for the events experienced. The expertise of internal auditors plays an important role in the GGG. When associated with attribution theory, expertise possessed by internal auditors, such as education, knowledge, technological capabilities, experience, etc., are used properly and carried out in accordance with applicable internal audit standards. The expertise of internal auditors is also a guarantee for the organization that the ongoing audit process will be completed properly so that the internal audit becomes effective. In addition, internal auditors have expertise will be able to recommendations that improve organizational performance and realize GGG. When associated with agency theory, internal auditors who have expertise are expected to be able to reduce the information gap between principals and agents by using their expertise in detecting risks, fraud, window dressing efforts, and other unethical actions that may be carried out by the agent for personal gain or group. Therefore, to produce an effective internal audit, internal auditors who have expertise are needed. In addition, when associated with stakeholder theory, the expertise of internal auditors is able to provide stakeholder rights, namely to obtain the same information and can be interpreted in decision making. Furthermore, the auditor's expertise is used to assess and provide appropriate recommendations for increasing GGG in the organization. Therefore, the data concluded that the expertise of internal auditors had an effect on GGG through the effectiveness of internal audits.

## **VI. CLOSING**

### **6.1 Conclusions**

This study aims to determine the effect of internal audit quality, the independence of internal auditors, and the expertise of internal auditors on the effectiveness of internal audits and their impact on good corporate governance in companies and banks in the city of Makassar. The variables used in this study are internal audit quality, internal auditor independence, internal auditor expertise, internal audit effectiveness, and GGG. This study uses Partial Least Square (PLS) in analyzing the relationship between variables. Based on the analysis and previous discussion, conclusions can be drawn as follows.

1. The quality of internal audit has a positive effect on the effectiveness of internal audits
2. The expertise of internal auditors has a positive effect on the effectiveness of internal audits.
3. Independence of internal auditors has a positive effect on the effectiveness of internal audits.
4. The quality of internal audit does not directly affect GCG, but it affects indirectly.
5. Independence of internal auditors has a positive and indirect effect on GCG.
6. Internal auditor expertise has a positive and indirect effect on GCG.
7. The effectiveness of internal audit has a positive effect on GCG.

### **6.2 Research Implications**

Based on the research that has been done, several implications of the results of the study are as follows.

1. **Theoretical Implications** The results of this study can provide benefits in the form of additional literature / empirical research references on the effect of audit quality, auditor independence, and auditor expertise on the effectiveness of internal audits and their impact on GGG. This research can be used as reference material for further studies.

2. **Practical implications** The results of the study can provide an overview of the importance of auditor expertise and independence towards increasing the effectiveness of internal audit and GGG in the government sector, so that the head of internal audit / regional inspectorate has consideration before appointing an internal auditor to carry out the assignment. These considerations can take the form of considerations regarding the level of difficulty, complexity, and the existence of interference with independence during the assignment. In addition, this study is also expected to provide an overview of the importance of audit quality towards the realization of internal audit effectiveness, so that the head of internal audit or senior auditor always reviews internal audit reports and supervises internal auditors who still do not have much experience to guarantee audit quality internal so that the performance standards of an assignment can be achieved. This research is also expected to provide an overview of the quality of internal audits of the GGG, especially for local governments that have not yet received an assessment without an exception (WTP) to better understand that internal audit activities include financial, performance, compliance, system security, and due diligence. improvement in corporate governance.

So that the resulting internal audit activities are quality and can influence the improvement of corporate governance.

### 6.3 Suggestions

Based on the results of research that has been done, then some suggestions that can be submitted are as follows.

1. Suggestions for segregating duties to local governments whose employees have double jobs, not only as tax staff, finance, or accounting for example, but also as internal auditors. This is very vulnerable to inviting fraud.
2. Suggestions for future researchers to add indicators to the variable internal auditor expertise. The indicators used in this study only have 2, namely improvement in expertise and education. These indicators should need to be added with other indicators that are in accordance with the variables of internal auditor expertise, for example experience, communication skills, and technological skills.

### 6.4 Limitations

This study has several limitations that need to be considered for further research. These limitations include the following.

1. Difficulties in gaining access to research caused by not being accepted to research in a number of irrelevant locations, the demand for data and documents before the research is very large, and the research reply letter is very long.
2. There are a number of local governments whose auditors still lack internal audit certificates so that researchers have difficulty distributing questionnaires in districts / cities.

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