Technology-Based Control Testing to Strengthen Sustainable Corporate Governance in the Life Insurance Industry

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Abstract

Research Objective : This research aims to analyze the implementation of technology-based Control Testing by the Compliance division in a life insurance company , as well as how much influence control testing has on the governance of life insurance companies.

Method : This study uses a quantitative approach to a case study of a life insurance company. Primary data collection used a questionnaire , with a 5-point Likert scale. Respondents used in this study were 30 employees in the compliance division of a life insurance company . Data were analyzed using descriptive statistics , correlation analysis, and simple linear regression analysis.

Results : Overall, the results of the descriptive analysis show the implementation of Control Testing and Sustainable Corporate Governance (SCG). The life insurance company's corporate governance is in the very good category. Based on the correlation test between the Control Testing variable and Sustainable Corporate Governance (SCG), Governance the correlation coefficient value obtained is 0.890 with a significance value of 0.000 . The SCG regression model = 17,447 + 0.803 TECT. Where every 1 (one) point increase in the Control Testing value will increase the SCG value by 0.803. The R^2 value is 0.792, indicating that 79.2% of SCG is influenced by control testing.

Practical/Theoretical Contribution : This study contributes to strengthening governance which can be done through periodic testing of technology-based controls.

Keywords: Control Testing, Sustainable Corporate Governance (SCG), Life Insurance, sustainability .

1 Introduction

The Life Insurance Industry is a financial services sector that has an important role in provide financial protection to the public against risks . These risks include Death, accidents, and future economic uncertainty. In today's era, fast, effective, and efficient company activities can be carried out using digital technology [1]. In its business processes, life insurance is required to continue conducting business sustainably and innovate by implementing environmentally friendly digital transformation. The current

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transformation of the insurance industry requires the ability to integrate digital advancements with the application of Environmental, Social, and Governance (ESG) principles to create long-term business sustainability [2].

The synergy between digitalization and the implementation of Environmental, Social, and Governance (ESG) principles in insurance companies has become a crucial pillar in driving sustainable transformation in the modern financial services industry. In the era of the Industrial Revolution 4.0, digitalization is not only interpreted as the application of technology to accelerate business processes, but also as a strategy to build a more inclusive, transparent, and sustainable insurance ecosystem [3]. Furthermore, the use of digital technology requires employees to be able to operate it as a form of green talent. Green *talent* is characterized by individual abilities in environmental management, energy efficiency, understanding of sustainability regulations, and commitment to environmental ethics and responsibility [4]

In the context of Sustainable Corporate Governance (SCG) , the function *Compliance* is one of the main pillars in maintaining compliance with regulations and internal company policies. The *Compliance Department* has the responsibility to ensure that all business processes comply with laws and regulations, industry standards, as well as internal policies established by management. One of the activities The main activity carried out by this department is *Control Testing* or testing control.

Both GCG and ESG principles are used by life insurance companies to maintain corporate governance become Sustainable Corporate Governance [5]. Both play a crucial role in establishing Sustainable Corporate Governance (SCG). SCG principles ensure that programs can operate effectively, ethically, and accountably and is able to maintain environmental and social sustainability through ESG principles[6] . Control testing is an evaluation process that assesses whether *internal controls* have been designed well and run effectively in practice. In life insurance companies, control testing is an important part of supporting the implementation of corporate governance. Through control testing, companies can ensure that policies, procedures and operational activities comply with applicable provisions and can minimize risks that are detrimental to the company and be responsible for the environment [6], [7]

However, the implementation of control testing in life insurance companies still faces challenges. various challenges, such as the complexity of business processes, rapid regulatory changes , limited human resources, and less than optimal coordination between departments. This can affect the effectiveness of control testing in supporting the implementation of governance in the compan [8]y. Based on the description above, research on the influence of control testing towards the implementation governance of life insurance companies is important. Research This provides an overview of whether control testing has an impact on insurance company governance.

2 Literature Review

Three fundamental theories of governance are agency theory, stewardship theory, and stakeholder theory. Agency theory explains the relationship between the authority (principal) and the agent. Stewardship theory focuses on the interests and achievement of organizational goals. Stakeholder theory encompasses external parties, known as stakeholders, within the company [9]. Corporate governance is a set of systems for controlling a company that creates added value for stakeholders [10] n the insurance industry, GCG plays a vital role in managing policyholder funds with strict regulatory requirements. Effective governance implementation increases organizational transparency, accountability, and public trust while supporting long-term business sustainability [8].

The ESG has become an important benchmark for assessing corporate sustainability and business practices in the industry. The ESG concept, formally introduced through the Who Cares Wins report in 2004, has evolved from an initial idea of sustainable development into a more systematic evaluation tool for measuring corporate sustainability performance . As global attention to sustainability issues increases, ESG principles are increasingly important for companies in balancing financial and non-financial performance, enhancing stakeholder trust, and promoting sustainable corporate development.[11] [2]

The implementation of Testing of Controls supports continuous improvement by ensuring that internal controls remain effective and aligned with organizational objectives and regulatory requirements. Consequently, stronger internal controls are expected to enhance the implementation of Sustainable Corporate Governance (SCG) through increased transparency, accountability, responsibility, independence, and fairness. Based on this conceptual relationship, Testing of Controls is proposed as the independent variable, while Sustainable Corporate Governance (SCG) is treated as the dependent variable in this study.[12]

Testing of Controls is a systematic process used to evaluate whether internal controls have been appropriately designed and effectively implemented to mitigate operational and compliance risks. The assessment includes both design effectiveness and operational effectiveness to determine whether existing controls are functioning as intended. Through this process, organizations can identify control deficiencies, evaluate regulatory compliance, and recommend corrective actions to improve governance [13].

Within the Solvency II governance framework, effective internal control is recognized as a fundamental component supporting Sustainable Corporate Governance (SCG) in insurance companies. Consequently, Testing of Controls serves as a critical mechanism for evaluating governance quality, strengthening risk management, and ensuring regulatory compliance. As organizations increasingly adopt digital technologies, Testing of Controls has evolved into a technology-enabled compliance activity through

automated monitoring, electronic evidence management, and continuous assurance practices, thereby enhancing the efficiency and effectiveness of governance .

3 Research Methods

This study uses a quantitative approach to examine the effect of Testing of Controls on the implementation of Corporate Governance in a life insurance company. Respondents consisted of employees involved in Compliance, internal control, risk management, and operational activities related to the implementation of Testing of Controls. The sample was selected using a purposive sampling technique, with 30 respondents meeting the criteria. The variables in this study are Testing of Controls as the independent variable and Corporate Governance as the dependent variable. All questionnaire items were measured using a five-point Likert scale.The operational variables and indicators used for Control Testing are in Table 3.1 below.

Table 3.1 Operational Variable Control Testing

Variables	Indicator	Item	Question
Control Testing	Frequency of Implementation	X1	Control testing is carried out routinely in the company
	Testing Effectiveness	X2	Control testing is able to detect weaknesses in internal control.
	Testing Procedures	X3	Control testing procedures are clear and documented
	Sufficiency of Evidence	X4	The evidence collected in control testing is sufficient to support the test results.
	Documentation	X5	Evidence documentation is compiled completely and systematically.
	Result Constraints	X6	The results of control testing are reliable
	Team Competence	X7	The control testing team has adequate competence
	Independence	X8	Control testing is performed independently
	Standard conformity	X9	Testing methods according to standards/regulations
	follow-up	X10	Control testing findings are always followed up
		X11	Repairs were made on time
	Punctuality	X12	Management takes control testing results seriously

	Management Commitment	X13	There is monitoring of follow-up

The operational variables and indicators used for governance are in table 3.2 below.

Table 3.1 Operational Governance Variables

Variables	Dimensions	Indicator	Item	Question
Governance	Transparency	Information Disclosure	Y1	Company information is conveyed openly
		Access to Information	Y2	Internal control results can be accessed by related parties
		Honesty of Reporting	Y3	There is no manipulation in reporting
	Accountability	Clarity of responsibility	Y4	The responsibility of the control testing implementer in the organization is clear.
		Performance Evaluation	Y5	Performance evaluation is carried out objectively
		Accountability for Decisions	Y6	Decisions can be justified
	Responsibility	Compliance with Regulations	Y7	The company complies with environmental sustainability regulations.
		Precautionary Principle	Y8	The company applies the principle of prudence
		Internal Policy Compliance	Y9	Internal policies are well implemented
	Independence	Independence of Decision Making	Y10	No intervention in decision making
		Independence of Compliance Function	Y11	Compliance function runs independently
		Free from Conflict of Interest	Y12	No conflict of interest
	Fairness	Fair Treatment	Y13	Stakeholders are treated fairly
		Non-discrimination	Y14	No discrimination
		Protection of Policy Holder Rights	Y15	Policyholder rights are protected

Based on this theoretical basis, the following research hypotheses are formulated:

H0: Technology-Enabled Control Testing does not significantly affect Corporate Governance in the life insurance industry.

H1: Technology-Supported Control Testing has a positive and significant impact on Corporate Governance in the life insurance industry.

The collected data were subjected to instrument testing, including validity and reliability tests. Further analysis was carried out using descriptive statistics, correlation analysis, and simple linear regression analysis. The simple linear regression analysis was tested using classical assumption testing, hypothesis testing using the t-test, and coefficient of determination (R^2) analysis. This analysis was conducted to evaluate the significance of the relationship between Control Testing and Corporate Governance and to determine the contribution of Control Testing to improving corporate governance implementation.

The simple linear regression model used in this study can be expressed as:

$$SCG=\alpha+\beta(TECT)+\varepsilon$$

where SCG represents Sustainable Corporate Governance (SCG), TECT represents Technology-Enabled Testing of Controls, α is the regression intercept, β is the regression coefficient, and ε represents the random error term.

4. Results and Discussion

4.1 Implementation of Control Testing

The regulations that form the basis for life insurance companies are POJK No. 73/POJK.05/2016, POJK No. 43/POJK.05/2019, and Solvency II. The regulatory framework governs the implementation of corporate governance, *internal control* , and compliance functions [5], [7], [14]. These regulations emphasize the importance of a risk-based approach, strengthening the compliance function, and integrating control systems to maintain the stability and sustainability of the company. Furthermore, these regulations are implemented through the Compliance function, which plays a role in compliance monitoring, implementing a risk-based approach, and providing support and recommendations to management (advisory role). This function serves as a link between regulatory provisions and the company's operational practices. The compliance function is then integrated into the internal control system, which includes governance structures, risk management, and monitoring and audit mechanisms. This internal control aims to ensure that all company activities are carried out effectively, efficiently, and in accordance with applicable policies and regulations. Within this framework, Control Testing serves as the primary evaluation tool for assessing the effectiveness of internal controls, both in terms of design effectiveness and implementation (operational effectiveness). Through Control Testing, companies can

identify control deficiencies and assess the control's ability to mitigate risk. The results of Control Testing are then followed up through continuous improvement, which includes remediation of identified weaknesses and ongoing monitoring activities[6]. This stage ensures that internal controls are continually refined and adapted to the dynamic risks faced by the company[7].

Ultimately, the entire process leads to improved quality of Sustainable Corporate Governance (SCG), particularly in the areas of transparency, accountability, and regulatory compliance. Therefore, this framework demonstrates the central role of Control Testing in bridging regulatory implementation and internal control practices towards achieving Sustainable Corporate Governance [8], [15]). Following the meeting, the Compliance team conducts testing by reviewing supporting evidence such as Standard Operating Procedures (SOPs), work instructions, transaction samples, and other relevant documentation to evaluate whether controls have been implemented effectively. If deficiencies are identified, follow-up activities are conducted with relevant departments to obtain clarification and monitor corrective actions. Finally, the Compliance team prepares a Control Testing report that summarizes the testing procedures, findings, follow-up actions, and conclusions regarding the effectiveness of the evaluated controls. The implementation process is illustrated in Figure 1.

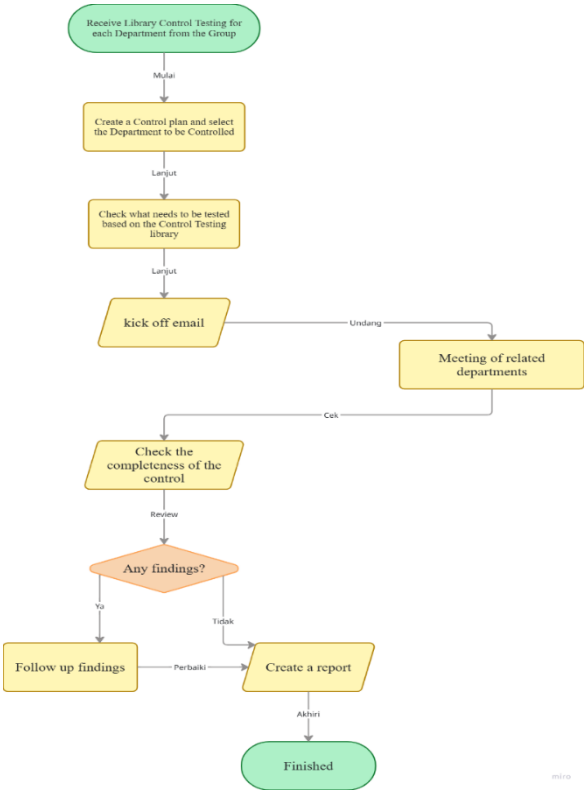


Figure 1 Control Flow Testing Implementation

4.2 Validity and reliability test

The results of the validity and reliability tests for the governance and control testing variables are shown in the following table. View the results of the Control Test Validity Test Table by comparing r calculate with r table of 0.361, then the result obtained is r count > r table at all Control Testing statements are valid because all calculated r items are greater than table r and the significance value is less than 0.05, namely 0.000. Based on the results of the Reliability Test Table, the Cronbach's Alpha value for the Sustainable Corporate Governance (SCG) instrument was 0.949 and the Control Testing variable was 0.932. These values indicate that both research variables are reliable because the Cronbach's Alpha value obtained exceeds the minimum limit of 0.60.

Table 4.1 Reliability and Validity

variable	Indicator	R	Cronbach's Alpha
Governance	Y1	0.580	0.932
	Y2	0.569	

	Y3	0.683	
	Y4	0.834	
	Y5	0.875	
	Y6	0.865	
	Y7	0.512	
	Y8	0.873	
	Y9	0.677	
	Y10	0.775	
	Y11	0.803	
	Y12	0.741	
	Y13	0.739	
	Y14	0.702	
	Y15	0.528	
Control Testing	X1	0.613	0.949
	X2	0.662	
	X3	0.786	
	X4	0.889	
	X5	0.936	
	X6	0.820	
	X7	0.918	
	X8	0.695	
	X9	0.811	
	X10	0.825	
	X11	0.828	
	X12	0.755	
	X13	0.811	

4.2 Correlation and Regression Analysis of Control Testing and Sustainable Corporate Governance (SCG)

4.2.1 Sustainable Corporate Governance (SCG) Model based on Control Testing

Based on the Pearson Correlation Test Table, the coefficient value is obtained correlation of 0.890 with a significance value of 0.000. Because the significance value is <0.05, it can be it is concluded that there is a significant relationship between the Control Testing variable and *Sustainable Corporate Governance (SCG)*. The correlation coefficient value of 0.890 indicates that the relationship between the two The variables are in the very strong category and have a positive relationship direction. This means, The better the implementation *of control testing* , the better the implementation of *Sustainable Corporate Governance (SCG)* . tends to get better. Thus, the implementation of effective control testing can support the creation of Sustainable Corporate Governance (SCG).

Correlations

		Control Testing	GCG
Control Testing	Pearson Correlation	1	.890**
	Sig. (2-tailed)		.000
	N	30	30
GCG	Pearson Correlation	.890**	1
	Sig. (2-tailed)	.000	
	N	30	30

**. Correlation is significant at the 0.01 level (2-tailed).

The results of a Pearson correlation analysis with a correlation coefficient of r = 0.890 and a significance level of p = 0.000**,** indicate a very strong and statistically significant positive relationship between Technology-Supported Control Testing and Sustainable Corporate Governance (SCG)**.** To test the relationship model using simple regression analysis. The results of the regression analysis are as follows:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	17.447	4.552		3.833	.001
	Control Testing	.803	.078	.890	10.330	.000

a. Dependent Variable: GCG

The simple linear regression model used in this study can be expressed as:

$$SCG=17.447+0.803(TECT)+\varepsilon.$$

H0: $\beta_1 = 0$ (Technology-Based Control Testing does not have a significant influence on Sustainable Corporate Governance (SCG))

H1: $\beta_1 \neq 0$ (Technology-Based Control Testing has a significant influence on Sustainable Corporate Governance (SCG))

Based on the Simple Linear Regression Analysis Table, from the results of the SPSS calculations in From the above, a simple linear regression equation can be constructed.
From the regression equation above, the following can be constructed:

a. The constant value of 17.447 means that if the Control Testing variable (X), the value its 0 then CGC (Y) is 17.447

b. The regression coefficient value of the Control Testing variable (X) is 0.803, which tends towards positive regression, where every 1 (one) point increase in the Control Testing value (X) then the CGC value (Y) will increase by 0.803, the coefficient is inclined in a positive direction, meaning there is a positive or unidirectional correlation between the Control variables Testing with CGC, if Control Testing increases then CGC will also increase increase.

The t-value of 10.330 with a p-value of 0.00 indicates that H0 is rejected, thus the regression results confirm that Technology-Based Control Testing has a positive and statistically significant influence on Corporate Governance. Based on the Determination Coefficient Table, it can be seen that the R^2 value is 0.792. This indicates that the magnitude of the implication (relationship) of the independent variables (Control Testing (X1)) against the dependent variable (SGC) is 0.792 or 79.2%. Meanwhile, the remaining 20.8% is the implication of other variables that are not included. in research.

The correlation coefficient (R) value of 0.890 shows that the relationship between Control Testing and *Sustainable Corporate Governance (SCG)* is in the very strong category and has a positive relationship direction. This shows that the better the implementation of control testing, then the implementation of *Sustainable Corporate Governance (SCG)* also tends to be better. The Std. Error of the Estimate value of 2.487 indicates the level of error in the model's predictions. relatively small regression so that the research model is considered quite good at predicting *Sustainable Corporate Governance (SCG)* variable .

4.2.2 Classical assumption test

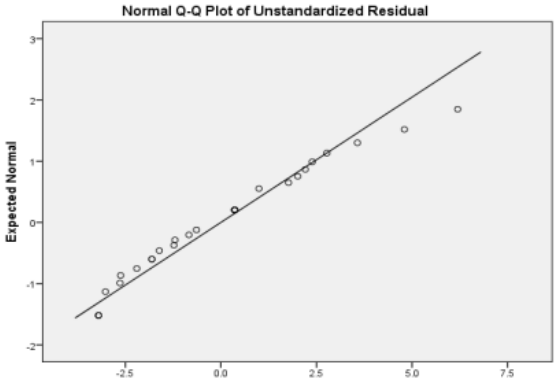
The Classical Assumption Test is a data test that aims to determine whether each variables, namely Control Testing (X1) and CGC (Y), meet the requirements for analysis. Testing of classical assumptions in research uses heteroscedasticity and normality tests. The normality test in this study was carried out on the residual values of the regression. using the Shapiro–Wilk test method. This test aims to determine whether residuals in the regression model are normally distributed or not.

Tests of Normality

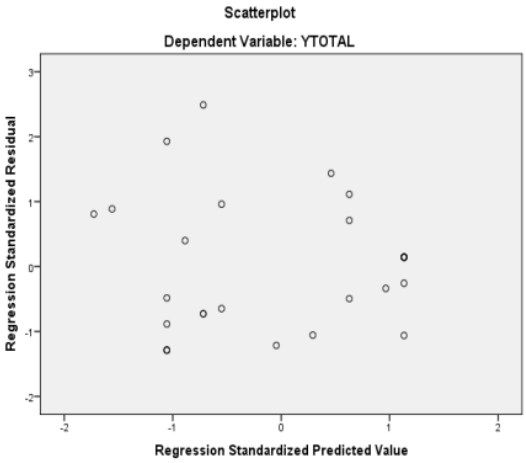
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	.141	30	.129	.943	30	.110

a. Lilliefors Significance Correction

Judging from the results of the normality test, the significance value obtained was 0.110. Because the value significance> 0.05, then it can be concluded that the residuals in the regression model are distributed normal.



Based on the Normal QQ Plot of Unstandardized Residual graph, it can be seen that the residual data points tend to spread around the diagonal line and follow the direction of the line. diagonal. This shows that the distribution of residuals in the regression model is visually normally distributed. The Normal QQ Plot graph is used to support the test results. statistical normality to visually see the residual distribution pattern in the regression model



Based on the heteroscedasticity test using a scatterplot, the residuals are randomly distributed without forming a specific pattern and are above and below the zero line on the Y-axis. These results indicate that the regression model meets the homoscedasticity assumption. Furthermore, the autocorrelation test produces a Durbin–Watson value of 2.339 which is in the range of 1.5–2.5. This indicates there is no autocorrelation between residuals, so the regression model meets the assumption of residual independence and is declared suitable for use in the analysis.

4.4 Discussion

Based on the results of research and discussion regarding the influence of Control Testing towards Sustainable Corporate Governance (SCG) in life insurance companies, then it can concluded as follows: a) The results of the descriptive analysis show that the Control Testing and governance variables are at very good category. This shows that the implementation of control testing in the company has been running well, especially in terms of control effectiveness, quality of testing, as well as follow-up on evaluation results. B The results of the hypothesis test show that Control Testing has a positive effect and significant impact on Sustainable Corporate Governance (SCG). This is proven through The calculated t value is 10.330 which is greater than the t table of 2.048 with significance value of 0.000 < 0.05. In addition, the results of the coefficient of determination shows an R Square value of 0.792, which means that the Control Testing variable able to influence Sustainable Corporate Governance (SCG) by 79.2%, while the rest influenced by other variables outside the research. Thus, the better implementation of control testing, then the application of Sustainable Corporate Governance (SCG) in the company will also get better.

The results of this study show that the better the implementation of control testing, then the implementation of Sustainable Corporate Governance (SCG) in the company will also be better. Control testing is the process of testing the effectiveness of internal controls to ensure that the procedures, policies and systems implemented by the company run according to with the provisions that have been set. Control that runs well will help companies minimize the risk of errors, fraud, and irregularities so that corporate governance can be implemented effectively. In practice, control testing helps management and auditors to evaluate whether the internal control system is able to support SCG principles such as transparency, accountability, responsibility, independence, and fairness. When If the company routinely performs control testing, weaknesses in the system can be immediately identified. found and fixed. This will increase stakeholder confidence. interests in the company because the company is considered capable of implementing good governance good and responsible.

Based on the results of descriptive analysis of the Sustainable Corporate Governance (SCG) variable, all indicators obtained an average value in the very high or very good category with a mean value range of 4.37 to 4.80. Indicator Y7 has the highest mean value of 4.80, while Y1 and Y2 have the lowest average value of 4.37, but still included in the very good category. In addition, the total average value of variable Y was 64.23 shows that the implementation of the principles of Sustainable Corporate Governance (SCG) in the company life insurance has been running well, consistently and effectively based on assessments respondents. The results of this study are in line with research by the Committee of Sponsoring Organizations. of the Treadway Commission (COSO) (2023) [7]which states that the effectiveness of internal Control has a close relationship with the implementation of Sustainable Corporate Governance (SCG). The system Strong internal control can improve the quality of supervision and support the creation of effective corporate governance. In addition, this research is also supported by research that explains that internal control functions to safeguard company assets, ensure reliability of financial reports, as well as improving compliance with management policies. With effective control testing, companies can run their operations

effectively. operations in a more focused manner and in accordance with the principles of Sustainable Corporate Governance (SCG)) [16], [17].

From a theoretical perspective, an effective internal control system is a crucial mechanism for mitigating operational risk, reducing information asymmetry, and ensuring organizational accountability. The adoption of digital technology further enhances this mechanism by enabling continuous monitoring, real-time reporting, and evidence-based compliance assessments. Consequently, technology-based control testing is expected to strengthen governance quality by enhancing the effectiveness of oversight functions, increasing operational transparency, and supporting more informed strategic decision-making. Therefore, organizations that extensively implement technology-based control testing are expected to demonstrate a higher level of Sustainable Corporate Governance (SCG) than organizations that primarily rely on traditional manual control procedures.

These SCG principles can implemented well if the company also has good internal control. SCG is a tool internal control plays an important role in reduce problems that arise in the company, because SCG is useful for improving communication, minimize impact, focus on core strategies, and increasing customer satisfaction and gaining trust investors (stakeholders). Internal control has an important role in the implementation of SCG, so that must function as an independent assessment in assist management in carrying out its responsibilities. This research is able to analyze the implementation of the principles Sustainable Corporate Governance (SCG) in the company Overall, the findings indicate that Technology-Based Control Testing serves not only as a compliance mechanism but also as a strategic governance tool that enhances transparency, accountability, and organizational resilience [18]. By integrating digital technology into compliance activities, life insurance companies can improve monitoring efficiency, reduce operational risk, strengthen regulatory compliance, and support sustainable governance practices. Furthermore, increased adoption of digital compliance technology encourages employees to develop competencies in digital systems, compliance analytics, and technology-based risk management, creating green talent and enhancing environmental sustainability[11].

5 Conclusions

This study examines the effect of Testing of Controls on the implementation of Good Corporate Governance (SCG) in life insurance companies using a quantitative approach. The findings indicate that Testing of Controls has a positive and significant influence on the implementation of Sustainable Corporate Governance (SCG) in life insurance companies. Effective Testing of Controls enables organizations to evaluate the adequacy of internal controls, identify control deficiencies, and implement corrective actions that improve governance quality. Regression analysis indicates that an increase in Testing of Controls positively contributes to governance implementation, while the coefficient of determination ($R^2 = 0.792$) indicates that 79.2% of the variation in Sustainable Corporate Governance (SCG) can be explained by the implementation of Testing of Controls, with the remaining 20.8% influenced by other factors.

The results of this study highlight the important role of Testing of Controls in enhancing regulatory compliance and supporting the implementation of Sustainable Corporate Governance (SCG) principles within life insurance companies. By integrating technology-enabled compliance practices, such as digital documentation, electronic records management, and digital reporting, organizations can improve the efficiency and consistency of Testing of Controls activities while supporting more effective governance and regulatory compliance. Therefore, life insurance companies are encouraged to continuously improve their Testing of Controls processes as part of their strategy to strengthen governance quality, enhance risk management, and support long-term organizational sustainability. As a result, the implementation of transparency, accountability, responsibility, independence, and fairness can be strengthened through a more effective internal control system.

Reference

[1] Saadia Zahidi, *Future of Jobs Report*. World Economic Forum, 2023.

[2] Dedi Kurniawan, "Synergy Between Digitalization and ESG Principle Implementation in Insurance Companies: Pillars of Sustainable Transformation," *Integrative Perspectives of Social and Science Journal*, vol. 2, no. 3, pp. 7056–7063, 2025.

[3] H. G. Yapriono and R. H. MUstamu, "Implementation of Good Corporate Governance Principles at the Family-Owned Company PT. Gapura Fiberglass," AGORA: *: Jurnal Penelitian Dan Karya Ilmiah Arsitektur*, vol. 1, no. 3, 2013.

[4] D. Agustin *et al.*, "Mapping Green Talent: A Systematic Analysis of Required Skills, Knowledge, and Attitudes," pp. 372–382, 2025.

[5] Financial Services Authority of the Republic of Indonesia, "Financial Services Authority Regulation concerning the Implementation of Governance for Insurance Companies.," Indonesia, 2016.

[6] M. Harasheh and R. Provasi, "A need for assurance: Do internal control systems integrate environmental, social, and governance factors?," *Corp. Soc. Responsib. Environ. Manag.*, vol. 30, no. 1, pp. 384–401, Jan. 2023, doi: 10.1002/csr.2361.

[7] E. Comert and T. Aksoy, "The impact of COSO-based integrated internal control system on corporate governance principles in the sustainability era: The case of a leading educational foundation," *International Journal of Research in Business and Social Science (2147- 4478)*, vol. 14, no. 10, pp. 225–244, Jan. 2026, doi: 10.20525/ijrbs.v14i10.4852.

[8] J. F. Outreville, "The Relationship Between Insurance and Economic Development: 85 Empirical Papers for a Review of the Literature," *Risk Management and Insurance Review*, vol. 16, no. 1, pp. 71–122, Mar. 2013, doi: 10.1111/j.1540-6296.2012.01219.x.

[9] I. Suwandi, R. Arifianti, and M. Rizal, "Implementation of Good Corporate Governance (GCG) Principles at PT Asuransi Jasa Indonesia (Jasindo)," *Jurnal Manajemen Pelayanan Publik*, vol. 2, no. 1, pp. 45–54, 2018.

[10] R. A. G. Monks and N. Minow, *Corporate Governance (Third)*. Blackwell Publishing Ltd., 2023.

[11] Adjuddin Tadjuddin, Suhardi M. Anwar, Sitti Hadija, "An Overview of the Implementation of Good Corporate Governance at PT Asuransi Jiwasraya in Palopo City," Equilibrium :Jurnal Ilmiah Ekonomi, Manajemen dan Akuntans, Vol 4, 2014

[12] H. G. Yapriono and R. H. Mustamu, "Implementation of Good Corporate Governance Principles at the Family-Owned Company PT Gapura Fiberglass," *AGORA*, no. Vol 1, Issue 3, 2013.

[13] Metricstream, "What is Control Testing? Types, Benefits, and Best Practices," *https://www.metricstream.com/learn/what-is-control-testing.html*, 2024.

[14] The European Parliament and of the Council, "Solvency II: On the Taking Up and Conduct of Insurance and Reinsurance Business ," European, 2009.

[15] I. V. Olifer, "The Economics of Assurance: A Systems-Based Framework for Evaluating Internal Control Effectiveness," *Theoretical Economics Letters*, vol. 16, no. 01, pp. 234–248, 2026, doi: 10.4236/tel.2026.161016.

[16] Arnold Schilder, "The compliance function in banks ," Basel, Switzerland , 2003.

[17] A. A. Arens, R. J. Elder, M. S. Beasley, and C. E. Hogan, *Auditing and Assurance Services: An Integrated Approach*. in Always learning. Pearson, 2017. [Online]. Available: https://books.google.co.id/books?id=FqN1jwEACAAJ

[18] R. A. G. Monks and N. Minow, *Corporate Governance*. Wiley, 2011. [Online]. Available: https://books.google.co.id/books?id=iCYSnFhsCXQC

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