

# **THE EFFECT OF GOOD UNIVERSITY GOVERNANCE AND STRATEGY TOWARD THE PERFORMANCE OF HIGHER EDUCATION INSTITUTION**

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## **Abstract**

*Good University Governance (GUG) becomes an important element that universities are able to anticipate, design, implement, monitor, and assess the effectiveness and efficiency of policies (Henard and Mitterle, 2010). In addition, the presence of GUG expected performance can be increased (Muhi, 2010). This study seeks to prove alignment between GUG and performance directly and indirectly through mediating variable: choice strategy. In the context of higher education in Indonesia, through the testing of structural equation models, proved the presence of alignment GUG models on the performance of higher education as evidenced by  $R^2 = 0.72$  and the total estimated value of GUG on the performance of 85.10%. Through the choice of strategy is evident that the fit as mediation in the form of marginal partial mediation model (Venkatraman, 1989). Mediating role of marginal gave a strong signal that the universities in Indonesia have not been optimizing the role of the choice of strategy to improve performance. In contrast, the role of universities still rely on the implementation of the principles of the GUG; Fairness, Responsibility, Governance Structure, Accountability, Transparency, Autonomy, Credibility, Ethics, Mission and Vision; to produce superior performance.*

**Keyword:** *Good Univerity Governance, fit, mediation, performance*

## **INTRODUCTION**

One important element that focused of the reform of higher education in the world is the Good University Governance (GUG). First understanding of GUG raised by Clark (1983) which emphasizes how the university and higher education system defining ideals (goals), implementing, managing institutions, and monitoring the achievement of the results (achievements). Meeting of the International Association of University Governing Bodies of 2008 confirms the need for higher education institutions to continually improve and align its governance models to face of the challenge.

In the last decade, universities (PT) face dramatic changes such as the development mode of education system more flexible: e-learning and distance learning systems, the growing internationalization of PT, a more heterogeneous student profiles according to socio-economic background, ethnicity, and previous education, as well as the increased participation of women. In addition, the pressure to diversify income and reduce dependence on public funding continues to increase. Moving on from this, governance becomes a vital element PT where PT is able to anticipate, design, implement, monitor, and assess the effectiveness and efficiency of policies (Henard and Mitterle, 2010). In addition, the presence of GUG expected PT's performance can be increased.

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Testing of GUG in improving PT's performance, especially in Indonesia, are still relatively few and yet profound. Survey of GUG's implementation at Art and Design Indonesia College of TELKOM (STISI TELKOM) in 2011 only provides a general overview of GUG's implementation though the result's quite good (STISI Telkom, 2011). Muhi (2010) in his dissertation implicitly recommend any GUG models for each of the PT as a follow-up findings on the effect of GUG on the dimensions of academic performance. The scarcity of scientific studies that connecting GUG's implementation with PT's performance was caused by unfitness of GUG's dimensions or models itself and between the GUG's theory and practice on the other hand and It also caused by scarcity of alignment studies between GUG with PT's competitive strategy. Hussin and Asimirin (2010) suggested that the study of governance should consider the context of the PT are both external and internal context-national-international, principles, basic values, and beliefs valuable.

Darmawati et al. (2004) proved the existence of the relationship between corporate governance and performance, but Leni and Rasyd (2010) found no such relationship. Muhi (2010) proved that GUG effect on the quality of academic services as a key performance measure of PT, either directly or indirectly through academic and cultural initiatives. However, these studies have not been able to explain the GUG fit with the internal context, managerial aspects, and strategies for creating a performance in one system. The OECD also recommends the need to link GUG with the vision to achieve target and strategies so PT could grow and compete (Henard and Mitterle, 2010).

Contingency theory gives a signal that the best way to manage an organization, lead, or make a decision, is the ability to align the context of mutually dependent (contingent) to find the most appropriate strategy or fit in order to achieve the goal. Fit between strategy and context (the external environment and organizational characteristics) have positive implications on the performance (Venkatraman and Prescott, 1990). Drazin and Van de Ven (1985) argues that the system approach is a whole view in the application of the concept of fit. Chenhall and Smith (1998) through a systems approach, proved the existence of links between strategies choice, management techniques, and management accounting with performance.

Moving on from the study above, this study seeks to prove the alignment between GUG's model and PT's performance directly or indirectly through the choice of strategy; with a different approach. First, the setting of research on higher education as a form of public sector organizations has implications for the adjustment of the construct to the indicators or related variables. Second, the placement of strategies choices as mediation of GUG and performance in fit system. Third, the placement of GUG as an internal context that affect strategy and performance. This implies the change of analysis of cluster methods analysis into the structural model analysis. Hopefully, through the structural model approach can be proven fit between GUG with strategies and performance.

## **LITERATURE REVIEW**

### **Contingency Theory**

One of the theories to explain the relationship between the organization and the context is the contingency theory. Organizational choice and action is

limited by the pressures and demands of the environment that must be addressed appropriately in order to survive. Boezerooj (2006) states that the best way to manage an organization depends on the nature of the environment associated with the organization. This is related to the adoption of a variety of variables such as structure, strategy or policy that fit (fit) with kontinjensinya. Compatibility of this is needed so that the organization can run effectively (Donaldson, 2001).

The contingency theory perspective continues to be the basis of empirical studies by Oliver (1991), and Maassen and Gornitzka (1999) and Fisser (2001). Studies that focus on the fit between environmental contingencies and strategies have been described by Hofer (1975), Miller and Friesen (1978 and 1983), Mintzberg (1983), Mintzberg et al. (1998), Miller (1984, 1992), Boisot (1995), Peterson (1997), and Boezerooj (2006). Drazin and Van de Ven (1985) asserts that the fit and fit the definition adopted is very important in the development of contingency theory. Fit can be seen as a match between two or more factors that could affect the variables studied, in this case the performance.

In the contingency theory, structure or governance, strategy, management accounting systems, and performance related to one another (Porter, 1985; Martin et al., 2005). Fit between the organization's governance and internal characteristics of the strategy will be able to improve performance. Furthermore, contingent on all the interrelated variables must be explicitly stated and can be tested (Drazin and Van de Ven, 1985). When they wanted to test the model on the simultaneous relationship, not simply examined the association individually or partial, but should be tested in a contingency system in order to produce a comprehensive conclusion (Venkatraman and Prescott, 1990).

### ***Good University Governance***

GUG can be viewed as the application of the basic principles of the concept of "good governance" in the system and the process of governance at PT, through various adjustments made based on the values that should be upheld in higher education. A healthy system of governance is very important that the PT is able to operate effectively and accountable through transparency and accountability to being served. PT requires a role and a variety of educational settings academy, undergraduate, graduate and professional, research and public service, including through the elaboration of the structure of authority, the various demands of stakeholders either implicitly or explicitly. PT is also positioned as a provider of a variety of multi-product and services, as well as simultaneously containing complex elements. GUG is not a single character in a mere administrative, but also the responsibility and joint efforts involving the participation of all campus constituencies as appropriate.

Thus PT will not be able to achieve the goal of being superior to the whole vision and mission without applying the basic principles GUG based on the pillars of academic freedom and autonomy. AWI / MCI Program (2010) suggested dimensions and indicators of GUG as follows (1) context, mission and goals, (2) governance structure, (3) Management, (4) autonomy, (5) accountability, and (6) participation. Dimensions are trying to establish the alignment of internal and external environment and the management of the PT towards optimal performance.

This research attempts to develop a framework linking GUG governance principles that exist with the context (internal structure) college. First, the internal

organizational structure that can not be ignored in the GUG is the right strategic planning to move from formulation vision, mission and objectives are based on the college moral and ethical high (AWI / MCI Program, 2010; Indrajit and Djokopranoto, 2006). Secondly, Guidelines GUG in various OECD member countries such as United Kingdom, Denmark, Canada, and Australia emphasize how important the role of governance structure and credibility become the main actor implementation principles GUG (Henard and Mitterle, 2010). Third, the main principles GUG GUG is the essence of transparency, accountability, responsiveness, fairness and autonomy of universities (World Bank, OECD, UNDP, AWI / MCI Program, 2010; Henard and Mitterle, 2010; Indrajit and Djokopranoto, 2006) . It is expected that by linking the principles of GUG with its context, GUG coverage becomes more comprehensive and covers the GUG implementation.

### **Higher Education Strategy**

Galbreath (2009) defines business strategy as an effort to understand the various issues that can affect the organization's ability to meet market demand by using resources effectively in order to create a sustainable competitive advantage. Choice of the right strategy will create superior performance for the organization. Be a part of this strategy to consider in the creation of value for the consumer and generate a competitive advantage for the company (Porter, 1985). Porter (1985) states that an organization must have a clear competitive strategy with the aim to compete effectively and gain a sustainable competitive advantage. Competitive strategy is the competitive positioning of the most expected by the company occurred in the industry (Porter, 1985). In addition to the categories mentioned Porter (1985), the other categories are based on the level of aggressiveness of the market. Aggressiveness depends on its marketing strategy, risk management, financial leverage, product innovation, and speed of decision-making than others. Aggressiveness of the typology classified in four categories: prospectors, defenders, analyzers, and reactors, known as the Miles and Snow strategy typology.

Typology of Miles and Snow (1978) is generally consistent with the approach of Porter (1985). Prospectors are the types of organizations that use a strategy that emphasizes innovation and creativity to create new products. Defender always try to create stability and survival strategies of the company. Analyzers is a group of organizations that use a combination of prospectors with defenders. Reactors are always focused on efficiency without considering the environmental changes that occur. According to Smith, et al. (1989), the strategy typology of Miles and Snow (1978) may reflect the complexity of the environment facing the organization and the organizational processes of various dimensions, such as competition, consumer behavior, and response to the market situation, technology, organizational structure, and other managerial characteristics. While the theory of strategy orientation on Porter's typology (1985) only describes the behavior of market competition in general.

### **Higher Education Performance**

Performance is periodically determining the operational effectiveness of the organization, the organization, and employees based on the objectives,

standards, and criteria established previously (Mulyadi, 2001). Ilgen and Schneider in Williams (2002) states that performance is what people or systems do. The same thing was stated by Mohrman et al. (Williams, 2002), consists of the performance of the behavior in an atmosphere of achievement. Performance is a general term used for part or all of the actions or activities of an organization in a period with reference to a number of standards such as the costs of past or projected on the basis of efficiency, responsibility or accountability of management (Rival et al., 2011).

In the context of GUG, Fielden (2008) suggests a measure of performance in the four (4) dimensions of students, research, staff / human resources, and financial / efficiency. Meanwhile BAN PT (2010) there is an interesting measurement for consideration and very relevant as a performance measurement of PT which is a service to students.

### **Critical analysis**

Each country prepare guidelines GUG and seriously implement it. It's just still a rare one study that measures their effectiveness, especially when viewed from the application of the principles of GUG and relate it to the performance of PT. Studies on GUG GUG also not put as a contingency system in the context of organizational characteristics and strategies to achieve the expected performance. Therefore moved from the above analysis and previous research in particular, this study seeks to fill most of the gaps left by previous studies:

- 1) Putting the strategy variables as mediating between the corporate governance performance is one alternative to overcome the contradictions of the review of corporate governance with performance (Darmawati et al., 2004; Leni and Rasyd, 2010) at the same time continue the review Chang et al. (2010), Martinez-Campillo and Fernandez-Gago (2010) which incorporate orientation strategy as variables that affect performance.
- 2) This study supports and enhance comprehensive review and moved from the contingency theoretical framework linking organizational characteristics, strategies, fit and performance conducted by Venkatraman and Prescott (1990), Meznar and Johnson (2005), Drazin and Van de Ven (1985) , and Ayse and Berk (2010).
- 3) This research is also expected to affirm the influence of implementation of strategies of Miles and Snow typology (Smith, et al., 1989) compared with Porter's strategy.

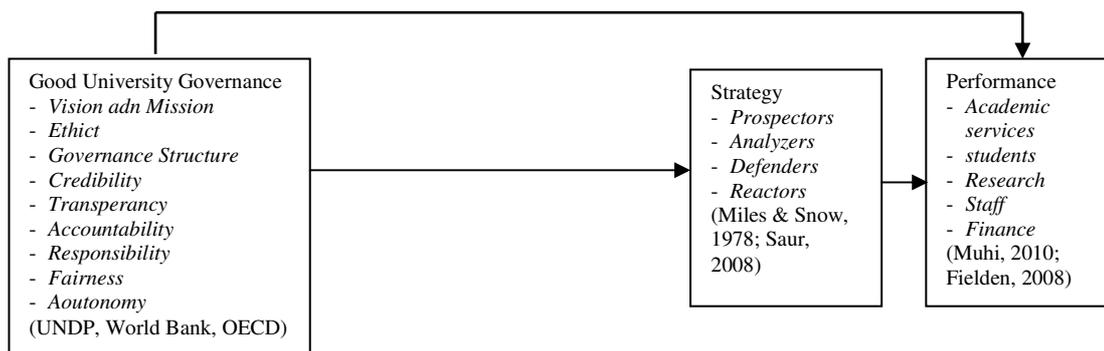
This study therefore aims to examine the relationship GUG and strategies with performance simultaneously with a systems approach within the framework of the contingency.

### **Theoretical framework**

Based on literature review and critical analysis, it can be concluded that the performance is affected by GUG either directly or indirectly through PT's strategy choice. GUG dimension includes a vision, mission; ethics; governance structure; credibility; transparency; accountability; responsibility; fairness; and autonomy (UNDP, World Bank, OECD, and Asimirin Hussin, 2010; Kim, 2008; Henard and Mitterle, 2010; Tierney, 2006;, and Allan and Rieu-Clarke, 2010; Beth and Yarbrough, 1999; David and Philip, 2005 ). The strategy is reflected by the choice of strategy prospectors, analyzers, defenders, and reactors (Miles and

Snow, 1978; Smith et al., 1989; Saur, 2008). Meanwhile, the performance reflected by academic services, student, research, staff and finance (BAN PT, 2010, Muhi, 2010; Fielden, 2008). Moving on from these ideas can be built a research framework as set out in Figure 1.

Figure 1 shows that the performance is affected directly by GUG and strategies. Indirectly, performance affected GUG through strategy. The strategy is directly influenced GUG. Thus GUG is a variable that acts as a temporary exogenous and Strategy and Performance is an endogenous variable. Performance is an endogenous variable that is affected while the strategy is an endogenous variable that affects simultaneously affected.



**Figure 1.**  
**The Framework of the Effects of GUG and Strategy on Higher Education Performance**

### **Effect of GUG to Strategy Choice**

Boezerooj (2006) showed that GUG effect to strategy. Similarly, Venkatraman and Prescott (1990) and Juliana (2011) proved the governance relationship with strategy choice. All three of these studies confirms that the governance assessment with strategy must be within the fit framework and contingencies. Smith, et al. (1989) confirmed the existence of a governance role of the strategy options on strategy typology of Miles and Snow (1978), namely prospectors, defenders, analyzers, and reactors. According to Smith, et al. (1989) strategy typology of Miles and Snow (1978) may reflect the complexity of the environment faced the organization and the organizational processes of various dimensions, such as competition, consumer behavior, and response to the market situation, technology, organizational structure, and other managerial characteristics. Move to from the thought and study, within the framework of the contingency can be compiled by the following research hypothesis.

*H1: GUG has positive effect to the choice of strategy*

### **Effect of GUG to Performance**

Confirms to the research of Beth and Yarbrough (1999), Darmawati et al. (2004) proved the existence of the relationship between corporate governance and performance that supported by studies Kyriakopoulos et al. (2004), Chang et al. (2010), Martinez-Fernandez-Gago and Campillo (2010), while Leni and Rasyd (2010) proved otherwise. In higher education setting, Muhi (2010) proved that GUG affect to PT's performance, either directly or indirectly. This is relevant with the advice of the OECD that associates GUG with the vision for achieving

goal, growing strategies and competitive PT. Fielden (2008) asserted that the effect of GUG to the performance can be seen from the performance of the PT in four dimensions, namely students, research, staff / human resources, and financial / efficiency. These indicators can be used for the national level and at the level of higher education institutions.

In the contingency theory, structure or governance, strategy, management accounting systems and management practices, and performance related to one another (Porter, 1985; Martin et al., 2005). Meznar and Johnson (2005) linked the more comprehensive study with performance within the context of fit which would indicate no clear relationship between the structure of governance and performance. Meanwhile, Ayse and Berk (2010) even put context as strategy mediation and performance. The variety of research results and the pattern of fit push to reassert contingency framework that connects to GUG with performance. Move to these thoughts, the contingency framework, the hypothesis can be written as follows.

*H2: GUG has positive effect to performance*

### **Effect of Strategy to Performance**

Choice of the right strategy will create superior performance for the organization. The choice of strategy be interesting part to consider in the creation of value for the consumer and generate competitive advantage (Porter, 1980). The researchers have tested the reliability and validity of the Miles and Snow typology. Shortell and Zajac (1990) demonstrated that the typology of Miles and Snow is strategic orientation and generally accurate predictions.

Chenhall and Smith (1998) proved that the choice of different strategies result in different performance. These results are supported by Meznar and Johnson (2005) who proved that within the fit context, strategies affect the performance. Widener (2005) by using environmental moderation is also related the strategy to the performance. Kyriakopoulos et al. (2004), and Kucukancabas and Akyol (2009) asserted that the orientation strategy as variables that affect performance. Move to from the previous researchs in the contingency framework of hypothesis can be stated as follows.

*H3: Strategies have positive effect to performance*

### **Fit between GUG, Strategy and Performance**

Porter (1985) stated that in order to compete, organizations must have a strategic competitive advantage through product differentiation or low cost or even the variation between the two strategies (Shank, 1989; Belohlav, 1993). Meanwhile, Miles and Snow (1978) typology suggested four strategies, namely prospectors, analyzers, defenders, and reactors. Chenhall and Smith (1998) used a system approach through management techniques and management accounting practices to see the trend of variations of the implementation of the strategy or strategies. The system approach is one of the three main approaches within the framework of the contingency (selection, interaction, and system) are by Van de Ven and Drazin (1985) considered a complete view of the application of the concept of fit. Kyriakopoulos et al. (2004), and Kucukancabas and Akyol (2009) included the management and strategic orientation as variables affect performance. The development of a systems approach considers that the understanding of relationship context, structure and performance of an

organization can provide benefits only if it is carried out simultaneously over a wide range of contingencies, structural alternatives, and performance criteria in a holistic manner (Van de Ven and Drazin, 1985). In other words, the expected performance is actually the result of a variety of alignment context and proper strategic.

In PT it is more interesting given the different characteristics, especially in terms of profitability goals. As it knows, generally higher education organization, the ultimate goal is quality of service of academic excellence, not profit, then the efficiency and economical. Overall, the assessment of higher institution performance emphasises on the ability to apply good governance and to produce the expected performance. On the other hand, higher education institutions also can not be separated from its context. Finally, universities should be able to determine the appropriate strategy choices to realize the academic and non-academic performance.

GUG urgency is born of the context of environment (internal and external), governance, and managerial to produce the position of a competitive strategy to achieve the aspired performance. Basically if there is the alignment of GUG, in terms of principles, sturuktur governance, and value, and the appropriate competitive strategic position, it will have impact on PT's performance.

Thus, in the contingency framework, research hypotheses can be constructed as follows:

- H4** : GUG has positive effect to performance through strategies
- H5** : simultaneously, GUG and strategies have effect to performance
- H6** : There is a fit between the GUG and strategy with performance

## METHODOLOGY

### Sample Selection and Operational Definition

This study uses explanatory design. Method of collecting data through a survey of a sample of objects. The population was 3,164 with 507 study program (Prodi) S1 Accounting. Thus the minimum sample size for Prodi S1 Accounting with  $N = 507$  is 205 S1 Accounting Study Program (follow Slovin formula) or between 205 and 213 S1 Accounting Study Program (follow Table Krecjie). There are 231 copies of questionnaires can be used from 242 copies of questionnaires are returned (Table 1). Thus based on the formula Slovin and Table Krecjie samples are achieved the minimum 231, is greater than that required in the significant level 5%.

Table 1. Final Sampling

Criteria	amount
Population of Higher Education	3164
Universities which have S1 Accounting Study Programs	507
Questionnaires were not returned	265
questionnaires returned	242
Questionnaires were returned which can not be processed	11
Final sample	231

### Operationalization of Variables

The variables involve in this study are latent variables and observed variables. Latent variables include latent exogenous variables: GUG, and endogenous latent variables: STRATEGI, and KINERJA. Observed variables include VISIMISI, ETIKA, STRKGOV, KREDIBEL, TRANSP, ACCOUNT,

RESPONS, FAIRNESS, OTONOMI, PROSPECT, ANALYS, DEFEND, REACT, LAYAKAD, MHS, Riset, STAF, and KEU The complete operational definition of latent variables are presented in the following sections. While, for the observed variables are presented in Appendix.

*Good University Governance (GUG)*

Good University Governance (GUG) is the application of the basic principles of good governance in the system and the process of governance in higher education institutions through various adjustments made based on the values that should be upheld in higher education (UNDP and the World Bank in Effendi (2003) and OECD (2005))

*Competitive Strategy choice (STRATEGI)*

STRATEGI is the competitive strategy of the universities to survive and win the competition. This strategy is a competitive strategy preferences of stakeholders (Miles & Snow, 1978; Smith et.al, 1989; Saur, 2008).

*Performance of Higher Education (KINERJA)*

KINERJA is performance, achievement, output, outcome as a result of the process of governance. (Muhi, 2010; Fielden, 2008; BAN PT, 2010).

Based on the operational definition, we developed questionnaire. The design of the questionnaire that had been developed further testing language, substance, and terms of the accounting by expert colleagues. Validity related to whether a variable measures what it is supposed to be measured. Doll, Xia, Torkzadeh (1994) to measure the validity of the variables in the Confirmatory Factor Analysis (CFA) model. According Ridgon and Ferguson (1991), and Doll, Xia, Torkzadeh (1994) in Wijanto (2008), a variable was said to have good validity if the value of t loading factors is greater than the critical value (or  $\geq 1.96$  or to practical  $\geq 2$ ), and the Standardized Loading Factors were  $\geq 0.70$ . Meanwhile, Igbaria et.al (1997) who used a guide of Hair et al. (1995) in Wijanto (2008) about the relative importance and significant of the factor loading of each item, stated that the standard factor loading  $\geq 0.50$  is very significant. Igbaria et.al (1997) added that if there was a standard factor loading value  $\leq 0.50$ , but still  $\geq 0.30$  then related to variables could be considered not to be removed. The use of the critical limits or 0.70 or 0.50 entirely up to the researcher to consider the substance of the underlying theories or models, the number of observed variables remained after the removal and related to reliability measurement model.

Reliability is the consistency of a measurement. High reliability indicates that the indicators have a high consistency in measuring the latent constructs. To measure the reliability of the structural equation model will be used composite measure of reliability (composite reliability measure / construct reliability / CR) and variance extracted measure (extract variant size / variance extracted / VE). Hair et al. (2007) stated that a construct has a good reliability is if the value of CR  $\geq 0.70$ , and VE  $\geq 0.50$ .

Furthermore it is compiled by Latent Variable Score (LVS) based on the eighty two statement relate to their variables. Validity and reliability are carried back to each of the variables in the form of LVS to form the main variables (GUG, STRATEGI, and KINERJA). The test is often called Second Order Confirmatory Factor Analysis.

The results show the variables except REACT and MHS can be seen throughout the standardized loading factor  $\geq 0.5$ . Meanwhile, all variables have a

t-value  $\geq 1.96$ . Similarly, Construct Reliability (CR)  $\geq 0.70$  and Variance Extracted (VE)  $\geq 0.5$ . Thus all variables can be used for further testing for validity and reliability as well.

### Compatibility Test of Model and Data

Because of this study uses SEM, it must be ascertained that there has been a fit of the data and the model. According to Hair et al. (1998) evaluation of the fit of the data with the model is done through several stages, namely (1) the suitability of the overall model (overall model fit); (2) the suitability of the measurement model (measurement model fit); and (3) structural model fit (structural model fit). The results of fit overall models mostly show good fit. Fit of measurement model of variables showed good validity. All variables have a t-value above 1.96. Except, VISIMISI which has SLF at below 0.70 but above 0.50, and REACT which has SLF 0.11, all variables have the SLF above 0.70. Similarly to the reliability of all variables are both exogenous and endogenous have CR  $> 0.70$  and VE  $> 0,50$  (see Appendix 3). Thus all variables, except REACT can be used for the further analysis.

Evaluation or analysis of the structural model includes the significance of the estimated coefficients. SEM method provides the value of the estimated coefficients and t-test values for each coefficient. By specifying the significance (typically  $\alpha = 0.05$  level or 0.10), each coefficient representing causal relationships that hypothesized can be tested statistically significance (if different from zero). The results of the structural model fit is presented in Figure 2.

Data from Figure 2 that the relationship between latent variables show significant ( $\alpha = 0.05$ , and  $\alpha = 12:10$ ). the relationship exogeneous GUG to STRATEGI and KINERJA are significant at  $\alpha = 0.05$ . Meanwhile, relationship to the endogenous variable STRATEGY to the KINERJA significant at  $\alpha = 0.10$ . In other words, the relationship between the main variables indicate the effect of GUG to KINERJA and STRATEGI has a t-value  $> 1.96$  (at the significance level 5%). Similarly, the influence of STRATEGI to the KINERJA have t-value  $> 1.282$  is 1.60 (significance level 10%).

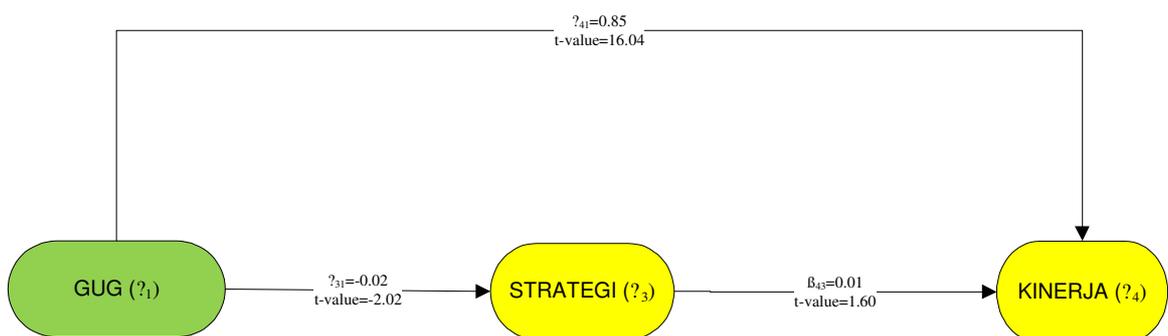


Figure 2. t-value dan Nilai Estimasi Model Struktural

### Method of Analysis

#### Hypothesis Model

There are four main relationship that will be tested through 14 hypothesis to prove the effect of GUG and Strategy with performance. These relationships, associate with each hypothesis and stated in mathematical notation as follows.

- 1) The direct effect of GUG to STRATEGI (**H1**)  
 $\eta_3 = \gamma_{31}\xi_1 + \zeta_3$  or  $\text{STRATEGI} = \gamma_{31}\text{GUG} + \zeta_3$ .....1)
- 2) The direct effect of GUG to KINERJA (**H2**)  
 $\eta_4 = \gamma_{41}\xi_1 + \zeta_4$  or  $\text{KINERJA} = \gamma_{41}\text{GUG} + \zeta_4$ ..... 2)
- 3) The direct effect of STRATEGI to KINERJA (**H3**)  
 $\eta_4 = \beta_{43}\eta_3 + \zeta_4$  or  $\text{KINERJA} = \beta_{43}\text{STRATEGI} + \zeta_4$ ..... ..3)
- 4) The indirect effect of GUG to KINERJA through STRATEGI (**H4**)  
 $\eta_4 = (\gamma_{31}\xi_1 + \zeta_3) * (\beta_{43}\eta_3 + \zeta_4)$  or  $\text{KINERJA} = \gamma_{31}\text{GUG} * \beta_{43}\text{STRATEGI} + \zeta_4$  ...4)
- 5) Effect of simultaneous GUG and STRATEGI to KINERJA (**H5**).  
 $\eta_4 = (\gamma_{31}\xi_1 + \zeta_3) * (\beta_{43}\eta_3 + \zeta_4) + (\gamma_{41}\xi_1 + \zeta_4)$  or  
 $\text{KINERJA} = \gamma_{31}\text{GUG} * \beta_{43}\text{STRATEGI} + \gamma_{41}\text{GUG} + \zeta_4$ .....5)  
 Judging from the value of  $R^2$  of the models GUG and Strategy Influence on Performance
- 6) *Fit* of GUG and STRATEGI to KINERJA (**H6**)  
 The relation between fit GUG and PERFORMANCE can be seen through the mediatory effect (the indirect effect of GUG to KINERJA through STRATEGI). The criteria proposed are::
  - a. If the indirect effect of GUG to KINERJA through STRATEGI significant and the direct effect GUG to KINERJA not significant, then formed a complete mediatory model.
  - b. If the indirect effect of GUG to KINERJA through STRATEGI significant and the direct effect GUG to KINERJA was also significant, then partial mediatory model is formed.
  - c. If the indirect effect of GUG to KINERJA through STRATEGI are smaller than the direct effect of GUG to KINERJA, then the role mediation by STRATEGI are not significant.

## FINDINGS/DISCUSSION AND IMPLICATION

### Finding

Results of structural model testing (Figure 2) shows the relationship between exogenous latent variables GUG and endogenous variables KINERJA directly or indirectly through endogenous variables STRATEGI. Besides that, the structural model also shows the relationship endogenous STRATEGI to KINERJA.

Relates to the hypothesis, the overall test results in accordance to the above structural model can be expressed as follows.

- 1) The direct effect of GUG to STRATEGI  
 $\text{STRATEGI} = -0.023 * \text{GUG}$ , Errorvar=1.00,  $R^2=0.00030$ .....1)  

(0.011)	(0.049)
-2.02	20.54

H1 is proven, the estimated coefficients -0.023, significant at  $\alpha=5\%$
- 2) The direct effect of GUG to KINERJA  
 $\text{KINERJA} = 0.85 * \text{GUG}$ , Errorvar.= 0.28,  $R^2 = .72$ .....2)  

(0.053)
16.04

H2 is proven, the estimated coefficients 0.85, significant at  $\alpha=5\%$
- 3) The direct effect of STRATEGI to KINERJA  
 $\text{KINERJA} = 0.0078 * \text{STRATEGI} + 0.85 * \text{GUG}$ , Errorvar.= 0.28,  $R^2 = 0.72$ ...3)  

(0.0048)	(0.053)	(0.040)
1.60	16.04	6.94

H3 is proven, the estimated coefficients 0.0078, significant at  $\alpha=10\%$

4) The indirect effect of GUG to KINERJA and STRATEGI

$$\begin{aligned} \text{KINERJA} &= -0.023 * 0.01 \dots\dots\dots 4) \\ &= -2.02 \quad 1.60 \\ &= -0.00023 \end{aligned}$$

H4 is proven, the estimated coefficients -0.00023, significant at  $\alpha=10\%$

5) Simultaneously effect of GUG and STRATEGI to KINERJA

$$\begin{aligned} \text{KINERJA} &= -0.00023 + 0.85 * \text{GUG}, \text{Errorvar.} = 0.28, R^2 = 0.72 \dots\dots 5) \\ & \quad (0.053) \end{aligned}$$

H5 is proven, the estimated coefficients positive 0.85, significant at  $\alpha=5\%$ ,  $R^2 = 0.72$

6) Fit of GUG and STRATEGI to KINERJA (**H6**)

- H4 is proven, the estimated coefficient -0.00023, significant at  $\alpha = 10\%$
- H2 proven, with the estimated coefficient 0.85, significant at  $\alpha = 5\%$
- Coefficient estimates  $H4 <$  Coefficient estimates H2

Thus it forms the partial mediatory model, the role of mediation by STRATEGI insignificant.

Summary of Hypothesis Testing Results are presented in Table 2 below.

**Table 2 Summary of Hypothesis Testing Results**

Hypothesis	Estimated coefficient	Significant	Conclusion
H1 : GUG has effect to the choice of strategy	-0.023	Significant at $\alpha=5\%$ t-value =2.02	Confirmed
H2 : GUG has effect to performance	0.85	Significant at $\alpha=5\%$ t-value=16.04	Confirmed
H3 : Strategies have effect to performance	0.01	Significant at $\alpha=10\%$ , t-value=1.60	Confirmed
H4 : GUG has effect to performance through strategies	-0.00023	Significant at $\alpha=10\%$ ,	Confirmed
H5 : simultaneously, GUG and strategies have effect to performance.	0.85	Significant at $\alpha=5\%$ t-value=16.04 $R^2 = 0.72$	Confirmed
H6 : There is a fit between the GUG and strategy with performance.		- H4 Confirmed, with estimated coefficient -0.00023, Significant at $\alpha=10\%$ - H2 Confirmed, with estimated coefficient 0.85, Significant at $\alpha=5\%$ - estimated coefficient $H4 <$ estimated coefficient H2	Partial mediation model, with mediation role of STRATEGI insignificant (marginal).

## Discussion

### The Analysis of GUG Effect to Strategy Choice

It can be Proved that GUG directly have significant negative effect to the choice of strategy with t-value = -2.02, and the estimated value= -0023. Even though direction of relationship is different, these results support the study of Boezerooj (2006), Venkatraman and Prescott (1990) and Juliana (2011). The study confirmed the results of Smith, et al. (1989) that revealed a role in the governance to the strategy options in typology Miles and Snow (1978). According to Smith, et al. (1989) strategy typology of Miles and Snow (1978) may reflect the complexity of the environment facing the organization and the organizational

processes of various dimensions, such as competition, consumer behavior, and response to the market situation, technology, organizational structure, and other managerial characteristics. Indirect effect of GUG to the manifest variables strategy is prospector, analyzer, defender and reactor was not significant.

From the discussion of the measurement model STRATEGI, estimated values of PROSPECT (0.23), ANALYS (0.19), DEFEND (0.16) and REACT (-0.02). Range of values estimated prospector until defender (0.16 to 0.23) is very close. The transition strategy choice is still very fluid. It relates to relationship between GUG and negative strategy choice, so that it can be interpreted that the better GUG, the tendency of PT will be the lower and move to strategy analyzer, defender, and even reactor. It shows the PT is not aggressive in his strategy choice, prospector strategy is to increase the quality of human resources, the resources and tools required to develop new services and new markets that are available in advance and can be accessed.

The estimation results also imply that the PT would prefer the strategy analyzer. PT adopt new ideas and innovation when it is analyzed accurately, fair market monitoring; identification and analysis of trends and then develop new service offerings potentially proven. PT prefers to strengthen existing services rather than new services. On tendency of PT chooses defender strategy can be seen from the concentration of PT in the development of PT, cost control and quality to maintain a secure financial position, and identify the problems to find solutions in maintaining the PT position, and then increase the product services offering.

These results prove the influence GUG to strategy choice with the negative direction of the relationship and the estimated value is relatively small. In other words, the better GUG is more likely to choose the strategy analyzer, defender, and reactor. Thus H1 confirmed.

### **The Analysis of GUG Effect to Performance**

It is Proved that GUG directly has significant positive effect to the performance with the t-value = 16.04 and the estimated value=0.85. Researchs confirms the researchs from Beth Yarbrough (1999), and Darmawati et al. (2004) who proved the existence of a relationship between governance and performance that are supported by studies Kyriakopoulos et al. (2004), Chang et al. (2010), Martinez-Campillo and Fernandez-Gago (2010). In the higher education setting these results support the researchs Muhi (2010). However, the effect of GUG to the manifest variables of performance does not fully support the statement Fielden (2008). GUG indirectly have significant positive effect to the manifest variable STAFF (t-value = 29.25, the estimated value = 0.73), MHS (t-value = 6.49, the estimated value = 0:16), LAYAKAD (t-value = 16:04, the value estimate = 0:07), and KINKEU (t-value = 10.79, the estimated value = 0.03). These results confirmed that the effect of GUG to the performance can be seen from the performance of the PT in four consecutive dimensions Staff / HR, Student, Academic Services, and financial / efficiency. Three sizes (students, staff, and financial) of the four measures suggested Fielden (2008) proved. While research is not significant.

The results of the researchs dispelled Meznar and Johnson (2005), which would indicate no clear relationship between the structure of governance and

performance. In conclusion, the better the GUG is the better STAFF, MHS, LAYAKAD and KINKEU.

The better GUG then the learning process will be better characterized by a surrender of evaluation of learning outcomes from a lecturer in a timely manner. The better GUG then cumulative grade point (GPA) of students will increased, the average of length of passing more quickly, and the percentage of graduates absorbed by the higher employment. The better GUG the better academic services provided. face to face lectures, the availability and use of the Internet media / ICT, Services academic administration, guidance and counseling, interests and talents, and the scholarship will be a great service and perceived by students. The better GUG will increase the PT intellectual assets of a tenured faculty qualifications are higher. Thus, the results of this study prove H2, that there is a effect of GUG to PT performance.

### **The Analysis of Strategy Choice Effect to Performance**

It appears that the choice of strategy, though extremely small (estimated value = 0.008) have direct positive effect ( $\alpha = 10\%$ , t-value = 1.60) to the PT performance. Similarly indirectly, though the estimated value infinitesimally small, to the manifest variables the performance of, a significant positive influence of strategy choice at  $\alpha = 10\%$ , respectively Staff Performance (t-value = 1.61) performance of academic services (t-value = 1.60), financial performance (t-value = 1.59), and student performance (t-value = 1.56).

Choice of the right strategy will create superior performance for the organization. The results of this study support the researchs Chenhall and Smith (1998) which proved that the choice of different strategies result in different performance. These results also strengthen the study Mezner and Johnson (2005) who proved that fit within the context of strategies affect the performance. These results imply that the precise orientation of a particular strategy will enhance the performance as well as studies Kyriakopoulos et al. (2004), and Kucukancabas and Akyol (2009). Thus, PT increasingly chooses prospector strategy, the higher the performance of PT. In other words H3 is proved that the choice of strategy has effect to performance.

### **The Analysis of Fit between GUG, Strategy Choice and Performance**

Even with a small coefficient (-0.00023), there is the effect of GUG to KINERJA through STRATEGI with a negative direction. Thus H4 confirmed. It is proved that the total effect of GUG to KINERJA either directly or through other endogenous variables, namely STRATEGI is significant positive with a total estimated value=0.8510 and the t-value=16.04, as well as  $R^2 = 0.72$ . As the criteria that have been proposed in the previous section that the simultaneous effect of GUG and STRATEGI on KINERJA can be seen from the positive  $R^2$  value, and proved that the positive value of  $R^2$  is 0.72. Thus H5 confirmed. Based on the test results, Fit form of GUG and STRATEGI on KINERJA in partial mediation model with a mediating role by STRATEGI insignificant. Thus H6 is proved marginally.

This study proves marginally study of Chenhall and Smith (1998) which uses a systems approach through management techniques and management accounting practices to see the trend of variations of the implementation of the strategy or strategies. The system approach is one of the approaches in terms of

contingencies by Van de Ven and Drazin (1985) considered a complete view of the application of the concept of fit.

Sekalipun dengan hasil angka estimasi yang marginal atas peran STRATEGI terhadap kinerja, dan lebih didominasi pengaruh langsung GUG (sebagai variabel konteks internal), namun cukup untuk membuktikan bahwa fit antara konteks dan strategi berpengaruh terhadap kinerja.

Although the results of the role STRATEGI on performance marginal relatively, and more dominated by the direct effect of GUG (as an internal context variables), but enough to prove that the fit between context and strategy affect the performance.

An important research of this study is to support the study of Van de Ven and Drazin (1985) that an understanding of the relationship context, structure and performance of an organization to provide benefits only if carried out simultaneously over a wide range of contingencies, structural alternatives, and performance criteria in a holistic manner (Van de Ven and Drazin, 1985). In other words, the expected performance is actually the result of a variety of alignment strategic and context. Through contingencies in mediatory models, proved marginally fit between context (GUG) and performance through strategy.

The estimation results are significant at  $\alpha = 5\%$  and  $\alpha = 10\%$ , and the marginal value estimates are very likely related to the characteristics of the object under study is higher education institution. PT has different characteristics that primarily in terms of profitability goals. Universities belong to quasi public goods or common public known that the ultimate goal is the quality of service of academic excellence, not profit, then the efficiency and economical. The performance of higher institution assessment is to implement good governance in producing the expected performance. This is proved that the role of GUG is so big and dominated by the researchers built fit model. The tendency of a liquid strategy choice between prospector, analyzer and defender proves that higher education is to rely on the choice of strategy in achieving expected performance.

The program of study as the spearhead of a higher education institution, a collection of people who have ideals of education, looking at that aspect of the principles of GUG is the key to achieve superior performance. The program of study considers that the main aspects of the GUG which includes aspects of Fairness, Responsibility, Governance Structure, Accountability, Transparency, Autonomy, Credibility, Ethics, and Mission Vision is significantly influence the choice of strategy and performance.

## **CONCLUSION**

The results of this study shows a GUG alignment models to the performance of higher education proved by  $R^2 = 0.72$  and the estimated value of GUG against 85.10% performance. Through the choice of strategy is proven that the fit as mediation in the partial mediation model (Venkatraman, 1989).

The formation of a partial mediation model in the context of higher education indicates that the mediating variables is not a key variable in creating the expected performance. Higher Education, in this case study program, still believes that the application of the principles GUG is consistent and the better which will result in superior performance.

The results of this study has implications for strengthening the role of the principles of the GUG such as Fairness, Responsibility, Governance Structure, Accountability, Transparency, Autonomy, Credibility, Ethics, and Vision Mission at PT. In addition, there is a strong signal that the higher education institution do not optimize the role of the choice of strategy, management accounting practices and management techniques to improve performance. Appropriate higher education institution characteristics that are common goods, the application of the mediatory variables must be careful and adapted to the organizational context.

Sampel yang didominasi dari PTS yang berakreditasi C (mendekati 50%) memungkinkan munculnya mediasi parsial yang marginal.

Limitations of this study, the opportunities for further research are contingencies built models do not distinguish between state and private universities sampled. Samples were dominated from PTS that accredited C (approaching 50%) might be cause of the partial mediation marginal.

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## **APPENDIX 1. Operationalization of Variables**

GUG is the exogenous latent variable is constructed by VISIMISI, ETIKA, STRKGOV, KREDIBEL, TRANSP, ACCOUNT, RESPONS, FAIRNESS, and OTONOMI.

### 1) The effectiveness of vision, mission and goals (VISIMISI)

Vision is a series of sentences that express the ideals or dreams of an organization that wants to achieve in the future. Vision is a dream about the future state desired to be realized by the entire personnel of the organization, starting from the top level to the bottom.

The mission is a statement of what is done by the various units of the organization and what they hope to achieve the organization's vision. The mission

is a written translation of the vision for the vision becomes easy to understand for all staff of the organization.

Goals are specific results to be achieved by an organization linked to the mission base. Further evaluation normative vision, mission, and objectives of the course are set forth in the statements in a 1-5 Likert scale.

#### 2) Values, ethics, and academic morals (ETIKA)

Ethics are the basic beliefs, philosophy of life and philosophy were excavated from the noble values espoused and generally accepted by stakeholders (Indrajit and Djokopranoto, 2006). This indicator can be measured by looking at the presence or absence of a code of ethics and academic and lecturer and academic knowledge over the ETIKA. In addition it is also seen that ETIKA enforcement. With the code of conduct at least the study program shows a desire to make ethics as a reference in attitude and action. ETIKA constructs explored through statement that are arranged in a Likert scale 1-5.

#### 3) Governance Structure (STRKGOV)

Excerpted from AWI / MCI Program (2010) and Indrajit and Djokopranoto (2006) Governance Structure is a structure that is reflected by the relationship between the stakeholders in it. Indicators to measure the construct of governance structure is as follows.

- a. considerations body position and rank; is measured by looking the competence of of credits and the assessment team in providing functional considerations lecturer promotions. It also measured by the competence in deciding promotion of functional and structural staff.
- b. SK appointment of the chairman of the study program with the duties and functions that clear.
- c. courses periodic reports, is measured by scheduling issuance the Academic and Non-Academic Reports of Study Program
- d. The absence of affiliate the chairman Study Program with the leadership on it, measured by looking at the relationship / affiliation blood between chairman and chief courses above and below
- e. separation between the organizer and the owner, is measured by looking at the separation of personnel management Program Studi and higher institution owners. In addition, the level of intervention seen the owner of the management Program Studi
- f. Regular meetings with the dean, judging from the scheduling.

STRKGOV constructs explored through statements that are arranged in a Likert scale 1-5.

#### 4) Credibility (KREDIBEL)

Excerpted from AWI / MCI Program (2010), KREDIBEL is the credibility of the chairman Program Studi, especially in academic competence, integrity, intelligence, leadership and managerial capacity. Indicators to measure KREDIBEL are.

- a. Educational background of the chief of the study program, formal and professional also membership in associations (IAI)
- b. Organization's experience of chief study program or ad hoc at outside the study program
- c. Achievement of targets planned by the head of the study program during the course serving

- d. Academic promotions of chief study program on schedule
- e. Experience of chief study program in community service that recognized KREDIBEL constructs explored through statements that are arranged in a Likert scale 1-5.

5) Transparency (TRANSP)

TRANSP is the availability of accurate information, relevant and easy to understand which can be obtained for a low-cost so that stakeholders can take the right decision. Decision-making and implementation is done in a manner that follows rules and regulations. It also means that information is freely available and directly accessible to those who will be affected by the decision. Available information and the media must be in the form of easily understandable. Can be seen from the system and accounting standards to ensure the quality of financial reporting and disclosure, the development of management information system (MIS) to ensure the effectiveness of performance measurement and decision-making processes, development of risk management of PT to ensure that all significant risks have been identified, and measured and managed to the limit of tolerance. Thus the indicator to measure the transparency are variables.

- a. The existence of financial statements and academic reports of study program
- b. Accuracy of publishing financial statements and academic reports of study program
- c. The existence of an audit of financial statements Study Program or institutions of Higher Education
- d. Accessibility of financial statements and academic reports of study program
- e. Information accessibility on the study program through ICT
- f. Minutes of meeting accessibility of Studies Program

TRANSP constructs explored through statements that are arranged in a Likert scale 1-5.

6) Accountability (ACCOUNT)

Move to from AWI / MCI Program (2010), ACCOUNT is the demand that management has the ability to respond to questions from stakeholders on various corporate actions that they do. ACCOUNT include a clear definition of lines of accountability: academic staff, managerial staff, administrative staff, governance bodies; Processing for the evaluation institutional goals achievement; Dissemination of information: institutional goals, student achievement, graduate market absorption, institutional evaluation (internal and external), accreditation; The method used to evaluate the performance of students, faculty, administrative staff, and managerial staff; Audit: the process of checking accounts of study program; Risk prevention; and a mechanism for handling misconduct. Thus the indicator to measure the following constructs ACCOUNT.

- a. clear lines of accountability Chief of the Program
- b. any scheduling goal achievement evaluation, student achievement, the absorption of graduates
- c. protective action and risk management
- d. the existence of mechanisms and implementation of information dissemination of institutional goals, student achievement, and the absorption of graduates
- e. Accreditation ratings BAN PT for Study Program
- f. The existence of program management meetings as a follow-up on researches of internal and external quality audits

g. Mechanism of evaluation Study Program that the steady and systematic ACCOUNT constructs explored through statements that are arranged in a Likert scale 1-5.

7) Responsiveness (RESPONS)

RESPONS is the ability to capture the Studies Program issues and problems that occur in the dynamics of Study Program. In addition, effort of the response Studies Program on stakeholder expectations and attitude problems. Studies Program are required responsive to the issues raised in the surrounding environment and be able to act or to participate to react. Can be seen as a concern for social responsibility and guarantee the atmosphere and conducive academic environment. Thus RESPONSE constructs can be measured by the following indicators.

- a. The existence of regular curriculum activities reanalysis
- b. The presence of activities- studies based on curriculum and market needs
- c. The existence of joint activities the study program with associations or community
- d. The activities of corporate social responsibility (CSR) study program or institution

RESPONSE constructs explored through statements which compiled the 1-5 Likert scale.

8) Fairness (FAIRNESS)

FAIRNESS is the protection of minority stakeholders, in terms of gender, economics, geography, protected from fraud, self-dealing or error action. System roles and responsibilities of the structural, management and committees and fair remuneration (performance based). Thus fairness constructs can be measured through the following indicators.

- a. The presence of key performance indicators in assessing the performance and implementation as well as the basis for performance assessment
- b. Subsidy scheme and the allocation of the cost of education for underprivileged students
- c. The existence of a remuneration system and its application, including the basis for the staff awards
- d. The presence of study program representatives at the faculty senate and the effectiveness

FAIRNESS constructs explored through statements that are arranged in a Likert scale 1-5.

9) autonomy (OTONOMI)

Sourced from AWI / MCI Program (2010), OTONOMI is an Studies Program autonomous of the aspects of academic, financial, and human resources development. Academic autonomy includes the determination of the structure of academic autonomy, admissions policies, quality assurance mechanisms, the opening of new programs, funding of each program, the evaluation of learning outcomes, and evaluation of teaching methods. OTONOMI include autonomy in exploring funding, partnership agreements, ownership of assets, obtaining a loan. While the autonomous development of human resources include: staffing, HR policies, roles and responsibility involved, the ability to recruit staff (academic and administrative), career development policies, performance management, and

mechanisms to assess performance. Thus to construct indicators for measuring OTONOMI are as.

- a. determination of the structure of academic
- b. determining the admissions policy
- c. determination of quality assurance mechanisms
- d. teaching methods and evaluation of learning outcomes
- e. Opening Study Program/ New Department
- f. acquire and explore funding
- g. contract
- h. Recruitment of lecture and staff

OTONOMI constructs explored through statements that are arranged in a Likert scale 1-5.

The choice of strategy is the endogenous latent variable that constructed by PROSPECT, ANALYS, DEFEND, and REACT

1) Choice of Prospector Strategy (PROSPECT)

PROSPECT is an orientation that emphasizes the PT strategy on innovation and creativity to create new products. PT is always trying to be a pioneer in the competition, as well as willing to compensate the internal efficiency in innovation and creativity. Measured by the total score of the questionnaire were choosing strategies prospectors.

2) Choice of Analyzers Strategy (ANALYS)

Analys is PT that uses a combination of prospectors by the defenders, do not dare to take risks to innovate, but still strive to create excellence in service to the market. Measured by the total score of the questionnaire were choosing strategies analyzers.

3) Choice of Defenders Strategy (DEFEND)

Defend is PT who always try to create stability and survival strategies. Focus on achieving long-term stability and maintaining the core business without much change in the strategy. Measured by the total score of the questionnaire were choosing strategies defenders.

4) Choice of Reactors Strategy (REACT)

REACT is a type of PT that do not have consistency in adapting strategy (unstable). Measured by the total score of the questionnaire who chose a strategy of reactors.

Questionnaires were used to explore the dimensions of strategic options adopted from Miles and Snow (1973), which has been enhanced by Saur (2008) is the following.

- (1) Compared with study program from other universities, we provide a service that is best characterized as:
  - a. More innovative services, constantly changing and wider
  - b. Service was quite stable in the existing study programs and innovative in another Studies Program / Program Specialisation.
  - c. Excellent service focused, relatively stable and consistently understood by the entire organization and the student.
  - d. Services in a state of transition, and largely based on response to opportunities or threats of market or environment,
- (2) In contrast to others, we have the image of the PT in the market as:
  - a. Offering fewer, selective services with high quality

- b. Adopt new ideas and innovation, but only when it has done careful analysis.
  - c. React to opportunities or threats primarily to improve our position
  - d. Has a reputation for being innovative and creative
- (3) The amount of time spent on monitoring market changes and trends can be described as:
- a. Length: We continue to monitor the market
  - b. Minimal: We really do not allocate much time to monitor the market.
  - c. On average, we spend a reasonable allocation of time to market monitoring.
  - d. Sporadic: We sometimes spend a lot of time and at other times to spend less time monitoring the market.
- (4) Compared to other universities, the increase or decrease in the number of students that we experienced primarily to:
- a. Our practice concentrates on the development of courses that we services.
  - b. Our practice responding to market pressure by taking a few risks.
  - c. Our practice is aggressively entering new markets with new services and new programs.
  - d. Our practice is firmly penetrate deeper into the markets that we currently serve, while adopting new services only after very careful review of their potential
- (5) One of the most important goals in this study program compared with other is the dedication and commitment to:
- a. Keeping costs under control.
  - b. Analysis of costs and revenues carefully, keeping costs under control and selectively generate new services or enter new markets.
  - c. Ensure that the people, the resources, and tools required to develop new services and new markets are available and accessible.
  - d. Make sure that we keep every critical threat to take any action necessary,
- (6) In contrast to other study program, skills (competencies) which is owned by our management can be best characterized as:
- a. analyzes: their skills enable them to identify trends and then develop new service offerings or market.
  - b. Special: their skills are concentrated on one or a few specific areas.
  - c. Broad and entrepreneurship: skills are diverse, flexible, and allows changes,
  - d. Liquid: their skills related to short-term demands of the market
- (7) One thing that protects us from other organizations is that we:
- a. Being able to carefully analyze the trends and adopt only truly proven potential.
  - b. Being able to do a number of things very well
  - c. Able to respond to trends even though they may only have a moderate potential that appears.
  - d. Able to consistently develop new services and new markets.
- (8) More than existing study program, our management staff tend to concentrate on:
- a. Maintaining a secure financial position through cost control and quality.

- b. Analyze opportunities in the market and selecting only proven potentially opportunities, while protecting a secure financial position.
  - c. Activities or business functions are most in need of attention given the opportunity or problem currently facing.
  - d. Develop new services and expansion into new markets or market segments,
- (9) In contrast to many other study program, our organization prepares for the future by:
- a. Identify the best solution to the problems or challenges that need immediate attention
  - b. Identify trends and opportunities in the market which can lead to the creation of new programs or offers
  - c. Identify the problems that, if solved, will retain the position of the course and then improve our current service offerings and market position.
  - d. Identify trends in the industry that has proven long-term potential, while also solving the problems associated with our current service offerings and customer needs at this time.
- (10) Compared with other courses, the structure of my organization is:
- a. Naturally functional
  - b. Service-oriented or market-oriented
  - c. Especially naturally functional, but the structure of the service-oriented or market in the service area of newer or larger.
  - d. Constantly changing to enable us to meet the opportunities and solve problems that arise.
- (11) Unlike many other study program, organizational procedures that we use to evaluate our performance can be described as follows:
- a. Decentralized and encourage the participation of members of the organization's involvement.
  - b. Highly oriented reporting requirements that demand immediate attention.
  - c. Highly centralized and primarily the responsibility of senior management.
  - d. Concentrated in the service area are more established and more participatory in newer service areas.

STRATEGI measurement stage is as follows:

For the eleven statements above calculated total score of each option based on the strategy guide in the following table.

<i>Jawaban</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
<b>question 1</b>	P	A	D	R
<b>question 2</b>	D	A	R	P
<b>question 3</b>	P	D	A	R
<b>question 4</b>	D	R	P	A
<b>question 5</b>	D	A	P	R
<b>question 6</b>	A	D	P	R
<b>question 7</b>	A	D	R	P
<b>question 8</b>	D	A	R	P
<b>question 9</b>	R	P	D	A

<i>Jawaban</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
<b>question 10</b>	D	P	A	R
<b>question 11</b>	P	R	D	A

P:prospectors, A:analyzers, D:defenders, R:reactors

- total score for Prospectors put in PT scores related, the total score for DEFENDERS enter into DEFENDERS scores and also related to ANALYZERS and REACTORS.
- Arrange in the following table.

Name of Higher Education Institution	PROSPECTORS	DEFENDERS	ANALYZERS	REACTORS
	-	-	-	-
	-	-	-	-

PERFORMANCE is the endogenous latent variables, is constructed by LAYAKAD, MHS, Riset, STAFF, KINKEU.

#### 1) Academic Services (LAYAKAD)

LAYAKAD is performance measure that provides rankings type of service to students and utilization as well as its quality. Measurement for this indicator to see the PT's ability to serve the students so that students have access to services that can be used to foster and develop reasoning, interests, talents, arts, and wealth. Move to criteria set forth BAN PT (2010), indicators of academic services such as the existence of completeness for higher education which include:

- Face to face learning
- Availability and use of the Internet media / ICT
- Academic administrative services
- Guidance and Counseling
- Interests and talents
- Service Scholarship

Furthermore arranged in a Likert scale 1-5,

If there are 6 student academic services and put to good use, a score of 5.

If there are 4 to 5 student academic services and put to good use, a score of 4.

If there are 3 student academic services and put to good use, a score of 3.

If there are 2 student academic services and put to good use, a score of 2.

If there are only face-to-face learning, a score of 1.

#### 2) Students (MHS)

MHS is a performance that saw the ability of Study Program to manage students and graduates, see the three performance measures, namely graduate GPA, graduation time, and the uptake of graduates.

##### a. Average grade point average (GPA)

If GPA > 3.50, a score of 5.

If  $3.00 < \text{GPA} < 3.50$ , a score of 4

If  $2.51 < \text{GPA} < 2.99$ , a score of 3

If IPK2.00 <GPA <2.50 a score of 2

If CPI <2.00 a score of 1

b. Long graduation (average length graduation in 2012)

If the average graduate with 3.5 years under the same score of 5

If the average pass over 3.5 years to 4.0 years with a score of 4

If the average pass over 4.0 years to 5.0 with a score of 3

If the average pass over 5.0 years to 6.0 a score of 2

If the average pass > 6.0 years a score of 1

c. Percentage of graduates absorbed by employment or further study after 6 months

% Uptake graduates > 80%, a score of 5

70 <% uptake graduates <80, a score of 4

60 <% uptake graduates <70, a score of 3

50 <% uptake graduates <60, a score of 2

% of graduates uptake <50%, a score of 1

3) Research (RISET)

RISET performance is the amount of research that is in accordance with the scientific field, the number of scientific articles produced and the work of lecturer who have obtained patents, or gain recognition / awards. Thus a proxy for performance measurement is a comparison of publication / scientific work by the number of lecturers on study program.

3) Performance of staff (STAF)

STAF is the performance of human resources both educational and non-educational personnel, among others:

(1) The effectiveness of the system of recruitment, development, retention, and dismissal of permanent and temporary lecturers and staff to ensure the quality of the academic program delivery

(2) The system of monitoring and evaluation, as well as the track record of the performance of permanent and temporary lecturers and staff

(3) academic qualifications, competence of permanent lecturers and temporary lecturers to be the quality of academic

(4) The number, qualifications, and task of temporary lecturers

(5) Timeliness lecturers submit grades evaluation of learning outcomes

(6) Average attendance per month for non-educational personnel

4) Financial Performance (KINKEU)

KINKEU is Study Program's ability to maintain the ability to survive, grow and generate more residual use of the budget or a budget surplus. Budget and subsequent budget surplus is used to increase the capacity or capability study program. The end of the ability is the ability of PT generate a positive rate of return of investment. Actual investment results of the study program is owned intellectual asset programs. Intellectual assets in this case is a lecturer of courses that show the results of all efforts to implement tri dharma that lecturers as the main actors. This performance was recorded in the functional position of academic permanent lecturers. Therefore KINKEU can be measured from the value of intellectual assets of study program.

## APPENDIX 2 First Confirmatory Factor Analysis Results

No	Variabel Teramati	Akhir				Akhir			
		Validitas		Reliabilitas		Validitas		Reliabilitas	
		SLF	t-value	Construct Reliability (CR $\geq$ 0.70)	Variance Extracted (VE $\geq$ 0.50)	SLF	t-value	Construct Reliability (CR $\geq$ 0.70)	Variance Extracted (VE $\geq$ 0.50)
1	VM1	0.13	4.24			0.68	26.19		
2	VM2	0.12	4.01			0.71	27.74		
3	VM3	0.29	9.75			0.77	31.54		
4	VM4	0.31	10.48			0.57	20.91		
5	VM5	-0.02	(0.71)						
6	VM6	0.3	(10.13)						
7	VM7	0.19	6.26			0.69	26.97		
8	VM8	0	0.08						
9	VM9	0.13	4.34						
10	VM10	0.22	7.36			0.76	30.49		
11	VM11	0.21	7.04			0.71	27.88		
12	VM12	0.05	1.82						
13	VM13	0	(0.12)						
14	VM14	-0.03	(1.01)						
15	VM15	0.26	8.82			0.54	19.71		
16	VM16	0.76	30.19			0.87	38.19		
17	VM17	0.87	37.13			0.79	32.33		
18	VM18	0.64	23.86			0.70	27.41		
19	VM19	0.79	31.73			0.86	37.45		
20	VM20	0.89	38.34			0.76	30.96		
	VISIMISI			0.70	0.18			0.94	0.53
21	ET21 (ETIKA)	**	**	**	**	0.96	**	0.94	0.94
22	STR22	0.87	34.31			0.82	34.59		
23	STR23	0.92	36.99			0.81	33.64		
24	STR24	0.5	17.49			0.77	31.03		
25	STR25	0.24	8.07			0.68	26.20		
26	STR26	0.04	1.30						
27	STR27	0.21	6.94						
28	STR28	0.32	10.67			0.92	41.73		
29	STR29	0.35	11.92			0.81	33.77		
	STRUKTUR GOVERNANCE			0.67	0.27			0.92	0.65
30	KRED30	0.75	30.02			0.76	30.52		
31	KRED31	0.97	46.11			0.97	46.12		
32	KRED32	0.60	22.43			0.59	21.94		
33	KRED33	-0.41	(14.34)						
34	KRED34	0.41	14.36					0.83	0.62
	KREDIBILITAS			0.66	0.44				
35	TRAN35	0.46	15.09						
36	TRAN36	0.53	17.61						
37	TRAN37	0.29	9.10						
38	TRAN38	0.71	25.15			0.64	21.39		
39	TRAN39	0.78	27.76			0.86	27.77		
40	TRAN40	0.63	21.60			0.67	22.20		
	TRANSPARANSI			0.92	0.68			0.77	0.53
41	ACC41	0.45	14.92						
42	ACC42	0.63	21.66			0.87	38.16		
43	ACC43	0.67	23.65			0.91	40.69		
44	ACC44	0.62	21.21			0.94	43.79		
45	ACC45	0.2	6.42						
46	ACC46	0.64	22.25			0.52	18.90		
47	ACC47	0.71	25.28			0.56	20.43		
	AKUNTABILITAS			0.77	0.34			0.88	0.61

**APPENDIX 2 First Confirmatory Factor Analysis Results ... continued**

No	Variabel Teramati	Akhir				Akhir			
		Validitas		Reliabilitas		Validitas		Reliabilitas	
		SLF	t-value	Construct Reliability (CR <sub>≥</sub> 0.70)	Variance Extracted (VE <sub>≥</sub> 0.50)	SLF	t-value	Construct Reliability (CR <sub>≥</sub> 0.70)	Variance Extracted (VE <sub>≥</sub> 0.50)
48	RESP48	0.81	31.00			0.81	31.00		
49	RESP49	0.85	33.14			0.85	33.14		
50	RESP50	0.68	24.89			0.68	24.89		
51	RESP51	0.60	21.51			0.60	21.51		
	RESPONSIBILITAS			0.83	0.55			0.83	0.55
52	FAIR52	0.53	14.69			0.91	40.68		
53	FAIR53	0.27	7.49			0.85	36.79		
54	FAIR54	0.66	17.09			0.96	44.83		
55	FAIR55	0.59	15.95			0.94	43.15		
	FAIRNESS			0.59	0.28			0.95	0.84
56	OTO56	0.5	16.34						
57	OTO57	0.67	27.71			0.92	41.49		
58	OTO58	0.7	25.97			0.64	24.03		
59	OTO59	0.41	10.15						
60	OTO60	0.57	25.25			0.55	20.11		
61	OTO61	0.66	22.58			0.67	25.48		
62	OTO62	0.67	23.17			0.89	39.51		
63	OTO63	0.62	19.34			0.55	20.13		
	OTONOMI			0.82	0.37			0.86	0.52
64	LA81 (KINERJA LAYANAN AKADEMIK)	**	**	**	**	0.94	**	0.88	0.88
65	MHS82	0.42	5.24			0.77	31.14		
66	MHS83	0.46	5.30			0.94	43.58		
67	MHS84	0.24	4.63			0.85	36.03		
	KINERJA MAHASISWA			0.33	0.15			0.89	0.73
68	STAF85	0.81	29.70			0.82	29.52		
69	STAF86	0.85	31.65			0.83	30.26		
70	STAF87	0.42	14.01						
71	STAF88	0.2	6.29						
72	STAF89	0.51	17.61			0.65	23.63		
73	STAF90	0.39	12.76						
	KINERJA STAF			0.70	0.32			0.81	0.60
74	STRAT91	0.15	3.78						
75	STRAT92	-0.21	(5.21)			0.96	45.18		
76	STRAT93	-0.27	(6.65)			0.82	34.61		
77	STRAT94	-0.29	(7.23)			0.66	23.40		
78	STRAT95	-0.49	(11.44)			0.85	36.91		
79	STRAT96	-0.35	(8.59)			0.72	28.86		
80	STRAT97	-0.18	(4.52)			0.81	33.69		
81	STRAT98	-0.26	(6.51)			0.88	38.93		
82	STRAT99	0.42	(10.19)			0.86	37.51		
83	STRAT100	-0.11	(2.73)						
84	STRAT101	-0.17	(4.17)			0.90	39.84		
	KUESIONER STRATEGI			0.95	0.69			0.95	0.69
85	RISET10	0.82	34.06			0.82	34.06		
86	RISET11	0.94	42.68			0.94	42.68		
87	RISET12	0.95	43.21			0.95	43.21		
	KINERJA RISET			0.93	0.82			0.93	0.82
88	KEU (KINERJA KEUANGAN)	**	**	**	**	0.90	**	0.81	0.81
89	PROSPECT	0.95	43.80			0.95	43.80		
90	DEFEND	0.66	5.07			0.66	5.07		
91	ANALYS	1.11	7.25			1.11	7.25		
92	REACT	-0.31	(10.52)						
	PILIHAN STRATEGI			0.81	0.67			0.94	0.85

### Appendix 3. Second Order Confirmatory Factor Analysis

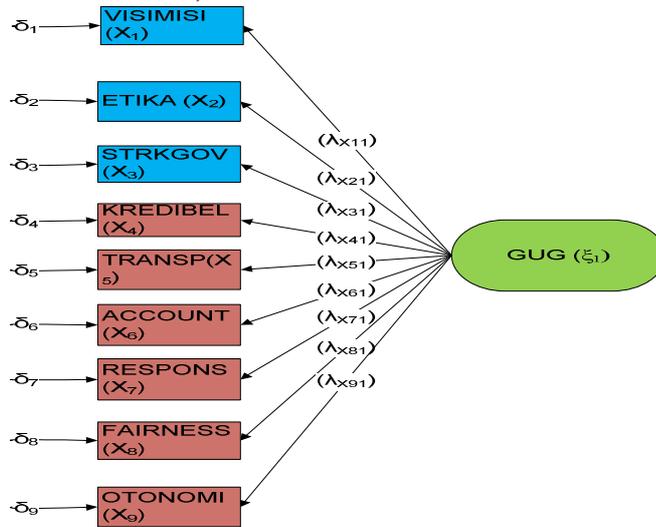
No	Variabel Teramati	2nd Order Confirmatory Factor Analysis			
		Validitas		Reliabilitas	
		SLF	t-value	Construct Reliability (CR $\geq$ 0.70)	Variance Extracted (VE $\geq$ 0.50)
1	VISIMISI	0.65	25.03		
2	ETIKA	0.89	39.48		
3	STRUKTUR GOVERNANCE (STRKGOV)	0.92	41.58		
4	KREDIBILITAS (KREDIBEL)	0.81	33.76		
5	TRANSPARANSI (TRANSP)	0.95	44.60		
6	AKUNTABILITAS (ACCOUNT)	0.96	45.23		
7	RESPONSIBILITAS (RESPONS)	0.90	40.52		
8	FAIRNESS (FAIRNES)	0.96	45.62		
9	OTONOMI (OTONOMI)	0.93	43.07		
	<b>GOOD UNIVERSITY GOVERNANCE (GUG)</b>			<b>0.97</b>	<b>0.79</b>
10	KINERJA LAYANAN AKADEMIK (LAYAKAD)	1.08	58.57		
11	KINERJA MAHASISWA (MHS)	0.17	15.63		
12	KINERJA STAF (STAF)	0.57	27.12		
13	KINERJA RISET (RISET)	0.74	38.05		
14	KINERJA KEUANGAN (KINKEU)	0.90	40.60		
	<b>KINERJA</b>			<b>0.85</b>	<b>0.57</b>
15	PROSPECTOR (PROSPECT)	0.92	41.07		
16	DEFENDER (DEFEND)	0.88	38.13		
17	ANALYZER (ANALYS)	0.85	35.41		
18	REACTOR (REACT)	(0.11)	(3.15)		
	<b>PILIHAN STRATEGI (STRATEGI)</b>			<b>0.80</b>	<b>0.59</b>

#### Appendix 4 Size Goodness Of Fit

UKURAN GOF	TARGET-TINGKAT KECOCOKAN	HASIL ESTIMASI	SIMPULAN
Chi-Square	Nilai yang kecil $p > 0.05$	456.96 ( $P=0.0$ )	Good fit
NCP Interval	Nilai yang kecil interval yang sempit	268.96 (210.09; 335.52)	Good fit
RMSEA	RMSEA $\leq 0.08$ <i>Good fit</i> $0.08 \leq$ RMSEA $< 0.10$ <i>Marginal fit</i> $P < 0.05$ <i>close fit</i>	0.035  1.0	Good fit
ECVI	Nilai yang kecil dan dekat dengan ECVI <i>saturated</i>	M: 0.57 S: 0.50 I: 30.01	Good fit
AIC	Nilai yang kecil dan dekat dengan AIC <i>saturated</i>	M: 680.96 S: 600.00 I: 35.987.21	Good fit
CAIC	Nilai yang kecil dan dekat dengan CAIC <i>saturated</i>	M: 1363.04 S: 2427.02 I: 36.133.37	Good fit
NFI	$NFI \geq 0.90$ <i>good fit</i> $0.80 \leq NFI < 0.90$ <i>marginal fit</i>	0.99	Good fit
NNFI	$NNFI \geq 0.90$ <i>good fit</i> $0.80 \leq NNFI < 0.90$ <i>marginal fit</i>	0.99	Good fit
CFI	$CFI \geq 0.90$ <i>good fit</i> $0.80 \leq CFI < 0.90$ <i>marginal fit</i>	0.99	Good fit
IFI	$IFI \geq 0.90$ <i>good fit</i> $0.80 \leq IFI < 0.90$ <i>marginal fit</i>	0.99	Good fit
RFI	$RFI \geq 0.90$ <i>good fit</i> $0.80 \leq RFI < 0.90$ <i>marginal fit</i>	0.98	Good fit
CN	$CN \geq 200$	610.37	Good fit
RMR	Standardized RMR $\leq 0.05$ RMR $\leq 0.05$	0.063 0.042	Marginal fit Good fit
GFI	$GFI \geq 0.90$ <i>good fit</i> $0.80 \leq GFI < 0.90$ <i>marginal fit</i>	0.97	Good fit
AGFI	$AGFI \geq 0.90$ <i>good fit</i> $0.80 \leq AGFI < 0.90$ <i>marginal fit</i>	0.95	Good fit
Stability Index	Stability Index $\leq 1$	0.000	Memenuhi syarat

**Appendix 5. Mathematical Model for Testing Measurement Model**

1) GUG measurement model, can be described as follows.



**Figure 3. Measurement Model of GUG**

Measurement model of GUG can be written in mathematical notation as follows.

$X_1 = \lambda_{x11}\xi_1 + \delta_1$  or  
 VISIMISI=  $\lambda_{x11}$ GUG +  $\delta_1$ .....6)

$X_2 = \lambda_{x21}\xi_1 + \delta_2$  or  
 ETIKA=  $\lambda_{x21}$ GUG +  $\delta_2$ .....7)

$X_3 = \lambda_{x31}\xi_1 + \delta_3$  or  
 STRKGOV=  $\lambda_{x31}$ GUG +  $\delta_3$ .....8)

$X_4 = \lambda_{x41}\xi_1 + \delta_4$  or  
 KREDIBEL=  $\lambda_{x41}$ GUG +  $\delta_4$ .....9)

$X_5 = \lambda_{x51}\xi_1 + \delta_5$  or  
 TRANSP=  $\lambda_{x51}$ GUG +  $\delta_5$ .....10)

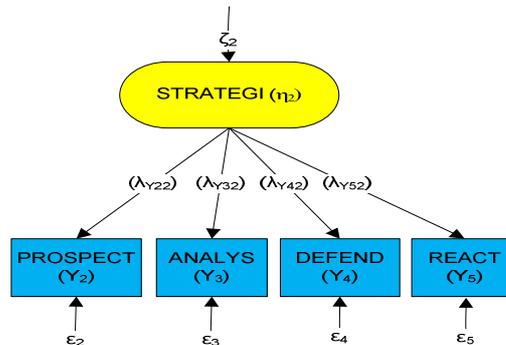
$X_6 = \lambda_{x61}\xi_1 + \delta_6$  or  
 ACCOUNT=  $\lambda_{x61}$ GUG +  $\delta_6$ .....11)

$X_7 = \lambda_{x71}\xi_1 + \delta_7$  or  
 RESPON=  $\lambda_{x71}$ GUG +  $\delta_7$ .....12)

$X_8 = \lambda_{x81}\xi_1 + \delta_8$  or  
 FAIRNESS=  $\lambda_{x81}$ GUG +  $\delta_8$ .....13)

$X_9 = \lambda_{x91}\xi_1 + \delta_9$  or  
 OTONOMI=  $\lambda_{x91}$ GUG +  $\delta_9$ .....14)

2) STRATEGI measurement model, can be described as follows.



**Figure 4. Measurement Model of STRATEGI**

Measurement model of STRATEGI can be written in mathematical notation as follows

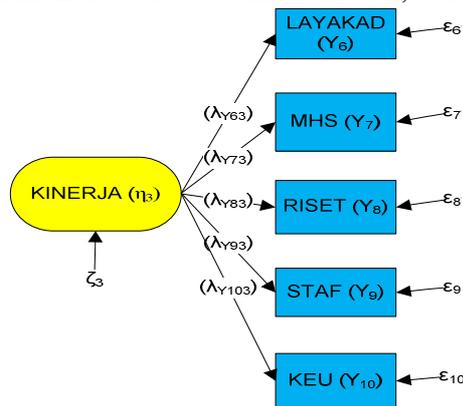
$$Y_2 = \lambda_{Y22}\eta_2 + \varepsilon_2 \text{ or} \\ \text{PROSPECT} = \lambda_{Y22}\text{STRATEGI} + \varepsilon_2 \dots\dots\dots 15)$$

$$Y_3 = \lambda_{Y32}\eta_2 + \varepsilon_3 \text{ or} \\ \text{ANALYS} = \lambda_{Y32}\text{STRATEGI} + \varepsilon_3 \dots\dots\dots 16)$$

$$Y_4 = \lambda_{Y42}\eta_2 + \varepsilon_4 \text{ or} \\ \text{DEFEND} = \lambda_{Y42}\text{STRATEGI} + \varepsilon_4 \dots\dots\dots 17)$$

$$Y_5 = \lambda_{Y52}\eta_2 + \varepsilon_5 \text{ or} \\ \text{REACT} = \lambda_{Y52}\text{STRATEGI} + \varepsilon_5 \dots\dots\dots 18)$$

3) KINERJA measurement model, can be described as follows.



**Figure 5.** measurement Model of KINERJA

Measurement model of KINERJA can be written in mathematical notation as follows.

$$Y_6 = \lambda_{Y63}\eta_3 + \varepsilon_6 \text{ or} \\ \text{LAYAD} = \lambda_{Y63}\text{KINERJA} + \varepsilon_6 \dots\dots\dots 19)$$

$$Y_7 = \lambda_{Y73}\eta_3 + \varepsilon_7 \text{ or} \\ \text{MHS} = \lambda_{Y73}\text{KINERJA} + \varepsilon_7 \dots\dots\dots 20)$$

$$Y_8 = \lambda_{Y83}\eta_3 + \varepsilon_8 \text{ or} \\ \text{RISET} = \lambda_{Y83}\text{KINERJA} + \varepsilon_8 \dots\dots\dots 21)$$

$$Y_9 = \lambda_{Y93}\eta_3 + \varepsilon_9 \text{ or} \\ \text{STAF} = \lambda_{Y93}\text{KINERJA} + \varepsilon_9 \dots\dots\dots 22)$$

$$Y_{10} = \lambda_{Y103}\eta_3 + \varepsilon_{10} \text{ or} \\ \text{KEU} = \lambda_{Y103}\text{KINERJA} + \varepsilon_{10} \dots\dots\dots 23)$$