EVALUATION OF INFORMATION TECHNOLOGY GOVERNANCE MATURITY LEVEL FOR PROVISION WVI WAMENA BRANCH

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Abstract: Information Technology has been utilized by the Wahana Visi Indonesia Foundation in the process of managing goods data (Provision). Therefore, good and correct IT governance is needed by predetermined standards so that the use of IT for the foundation's operations can run well. The purpose of this study is to determine the extent to which management manages the processes of managing and evaluating IT performance, Internal Control, External Requirements, and IT Governance. Capability and maturity level measurements were carried out using the COBIT 2019 framework. The results obtained were that the capability level and maturity level values in the MEA 01 objective domain were 2.17 with a percentage of 41% categorized Partially, the MEA 02 objective domain obtained a value of 1 .97 with a percentage of 36% and entered the Partially category, the objective domain MEA 03 obtained a value of 2.11 with a percentage of 36% and entered the Partially category, the objective domain MEA 04 obtained a value of 1.75 with a percentage of 38% and entered the Partially category. Each process domain that is in it produces a gap level value or GAP value for each of the selected objective domains based on factor design. Domain MEA 01 got a score of 1.83, domain MEA 02 got a score of 2.03, domain MEA 03 got a score of 1.89, and domain MEA 04 got a score of 2.25 out of the expected maximum value of 4.00. Thus it can be concluded that the management and process evaluation of management is lacking and does not match existing targets or standards.

Keywords: Capability; COBIT 2019; IT Governance; Maturity

Abstrak: Teknologi Informasi sudah dimanfaatkan kegunaannya oleh Yayasan Wahana Visi Indonesia dalam proses pengelolaan data barang (Provision). Dengan demikian, dibutuhkan tata kelola TI yang baik dan benar sesuai dengan standar yang sudah ditentukan agar penggunaan TI untuk operasional yayasan dapat berjalan dengan baik. Tujuan penelitian ini adalah untuk mengetahui sejauh mana manajemen mengelola proses-proses pengelolaan dan evaluasi kinerja TI, Internal Control, External Requirements dan Tata Kelola TI. Pengukuran capability dan maturity level dilakukan dengan menggunakan framework COBIT 2019. Hasil yang didapatkan berupa bahwa Nilai capability level dan maturity level pada domain obyektif MEA 01 adalah 2,17 dengan presntase 41% dikategorikan Partially, domain obyektif MEA 02 memperoleh nilai 1,97 dengan presentase 36% dan masuk kategori Partially, domain obyektif MEA 03 memperoleh nilai 2,11 dengan presentase 36% dan masuk kategori Partially, domain obyektif MEA 04 memperoleh nilai 1,75 dengan presentase 38% dan masuk kategori Partially. Setiap domain proses yang ada didalamnya menghasilkan nilai tingkat kesenjangan atau nilai GAP masing-masing dari setiap domain obyektif yang terpilih berdasarkan desain faktor. Domain MEA 01 mendapat nilai 1,83, domain MEA 02 mendapat nilai 2,03, domain MEA 03 mendapat nilai 1,89, domain MEA 04 mendapat nilai 2,25 dari nilai maksimal yang diharapkan 4,00. Dengan demikian bisa disimpulkan bahwa pengelolaan dan evaluasi proses dari manajemen sangatlah kurang dan tidak sesuai target atau standar yang ada.

Kata kunci: *Capability*; COBIT 2019; Tata Kelola TI, *Maturity*

INTRODUCTION

The rapid development of information technology has brought significant changes to the development of the world. It is not surprising that many companies or agencies adopt information technology to improve business process efficiency and competitiveness with other companies or agencies [1]. The development of information and communication technology has an impact on the dependence of organizations on information systems to support their mission and work functions. [2].

The implementation of IT in an organization will benefit so that IT investment is considered a necessary condition for increasing organizational competitiveness and providing quality services to the community [3]. IT governance is widely adopted by organizations in Indonesia, both government and private organizations [4]. Today, IT governance has become the management focus of many organizations and a key element of IT success in organizations [3].. I&T governance must be inclusive of governance corporate [5]. The company cannot assess whether the implementation of IT so far has been optimal or it could be that the implementation of IT can be even more optimal if it is managed properly. Therefore, IT governance is a guide that every company that implements IT must have [6].

Cobit is one of the framework used for auditing standards, COBIT is a standard that is considered complete and comprehensive in scope as an audit framework. COBIT is periodically developed by ISACA. In this COBIT several Domains are used for the audit process [7]. COBIT 2019 has 6 governance components namely: process, organizational structure, principles, information, organi-

zational culture, HR, and infrastructure services and their applications. Just like the previous COBIT 5, the domains in COBIT 2019 are divided into 5 domains, with governance and management objectives in COBIT grouped into five domains [8].

Image 1. COBIT 2019 Core Model [8]

The domains in COBIT 2019 are grouped into 5 [9], namely: 1. EDM (Evaluate, Direct, and Monitoring), this domain explains how companies evaluate, direct and assess strategic plans, this domain has a total of 5 processes. 2. APO (Align, Plan, and Organize), this domain discusses the overall organization, strategies, and activities that support enterprise information and technology, this domain has 14 processes. 3. BAI (Build, Acquire, and Implement), this domain discusses the design, acquisition, and implementation of IT solutions, this domain has 11 processes. 4. DSS (Deliver, Service, and Support), this domain discusses operational support and T&I service support, this domain has 6 processes. 5. MEA (Monitor, Evaluate and Assess), this domain discusses monitoring performance and conformity of T&I with performance targets and internal and external control objectives, this domain has 4 processes. Then from this process, a capability assessment at COBIT 2019 is divided into 6 levels, namely:

A. Level 0 (Incomplete/Incomplete)
B. Level 1 (Initial/Initial Stage)
C. Level 2 (Managed/Managed)
D. Level 3 (Determined/Defined)
e. Level 4 (Quantitative/Quantitative)
F. Level 5 (Optimize/Optimize)

Capability assessment at COBIT 2019 can also be assisted by ranking process activities with the following rankings [9]:

a. Fully (F), the capability rating is in the range of 85-100

b. Largely (L), the capability rating is in the range of 50-85

c. Partially (P), the capability rating is in the range of 15-50

d. Not (N), capability rating is less than 15 percent.

Based on research conducted by [4] there are several problems that often occur which cause a decrease in the quality of governance at the Population and Civil Registration Office of Tabanan Regency, so it is necessary to carry out an Information Technology Governance Audit. From this research, eight critical points were obtained at the Population and Civil Registration Office of Tabanan Regency. The value of the gap is determined based on the current capability and expected capability values obtained from the maturity level analysis and providing recommendations for improvement based on the current capability value. The implementation of improvements was made to the APO08 domain process, the implementation of which was based on a predetermined time schedule, which resulted in an increase in the capability value, which was previously at level 1, increased to level 2.

Furthermore, there was research conducted by [10] at the Communication and Informatics Service Office of South Lampung Regency. IT governance implemented has not run as expected. The purpose of this research is to implement IT governance to support business processes and institutional goals. The method in this study uses descriptive research methods. The samples obtained in this study amounted to 30 respondents. The model chosen in IT governance is the 2019 COBIT model. The data collection method uses a questionnaire technique. The results of this study are for ability level scores on DSS03 and DSS05. The results of this study can be recommended and implemented to improve IT governance at the Office of the Communication and Informatics Office of South Lampung Regency.

The purpose of this study is to evaluate how information technology governance at Wahana Visi Indonesia Wamena Branch can support the foundation's business processes. Framework COBIT 2019 is used in this research because it is by the research objectives, namely to evaluate the maturity level of information technology governance in the Provisional Wahana Visi Indonesia Wamena Branch. With COBIT 2019, we can find out in more detail whether governance is running well or not within the foundation. Evaluation of information technology governance using COBIT 2019 can provide detailed audit results and are by the current conditions of the Wamena Branch of the Wahana Visi Indonesia Foundation.

METHOD

This research was conducted at the Wamena Branch of Wahana Visi Indonesia. The scope of this research is to evaluate the capability level and maturity level of information technology governance carried out at the Wamena Branch of Wahana Visi Indonesia using the CO-

BIT 2019 framework in the object do-main MEA 01, MEA 02, MEA 03, and MEA 04. The research stages can be seen in Image 2.

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Image 2. Research Stages

The data collection method in this study was carried out using literature studies, interviews, and the distribution of questionnaires.
1. Literature Study. This research in-volves several scientific journal re-search references that are related to the topic of evaluating the maturity level of information technology gov-ernance.
2. Interview. Interviews were conduct-ed with WVI managers of the Wamena branch.
3. Questionnaire. Questionnaires were distributed to 6 respondents who were staff working in the office and consisted of the Manager, CESP Co-ordinator of the Child Care Program, education sector coordinator, spon-sorship information system coordina-

tor, Provision goods procurement coordinator, and one staff member of the goods procurement department.

Next, an analysis of the current con-ditions is carried out by the information technology governance SOP issued by the company so that a gap analysis will be obtained. The analysis was carried out to align and regulate the information technology management process in the goods procurement section of the WVI Wamena Branch. The guidelines for re-searchers conducting this analysis are the COBIT 2019 Implementation Guide, CO-BIT 2019 Design Guide, and COBIT 2019 Governance and Management Ob-jectives. In conducting data analysis, the researcher divides into 2, namely analysis of capability level and maturity level analysis.

Furthermore, the researchers com-piled recommendations that could be used as references by the goods procure-ment department of the WVI Wamena Branch. in optimizing Information Tech-nology governance.

RESULT AND DISCUSSION

The domain to be used in deter-mining the maturity level and capability level. at Wahana Visi Indonesia Wamena Branch can be seen in Table 1.

Table 1. Objectives Domain

IT Domain	IT Process
Monitor, Evaluate, and Assets	MEA01
Monitor, Evaluate, and Assets	MEA02
Monitor, Evaluate, and Assets	MEA03
Monitor, Evaluate, and Assets	MEA04
Monitor, Evaluate, and Assets	MEA01

An explanation of each process domain can be seen in Table 2.

Table 2. Description Domain

Process Domain	Process Description
MEA01	Management of activities related to monitoring and Evaluation of IT Performance
MEA02	Management of activities related to internal control monitoring and evaluation
MEA03	Management of activities related to monitoring and evaluation of external requirements
MEA04	Management of activities related to the monitoring and evaluation of IT governance

The results of the MEA 01 Capability Level Domain Managed Performance and Conformance Monitoring results can be seen in Table 3.

Table 3. Capability Level Domain MEA 01

Domain	Achievement	Percentage	Description
MEA 01.01	2,83	53%	Largely
MEA 01.02	2,50	48%	Partially
MEA 01.03	1,50	24%	Partially
MEA 01.04	2,33	47%	Partially
MEA 01.05	2,17	42%	Partially
MEA 01.06	1,67	31%	Partially
Σ MEA 01	2,17	41%	Partially

From the results of the assessment above, it can be concluded that Domain MEA 01 is still below 50% and is categorized as Partially or not all have been realized properly and reached the target. The results of the MEA 02 Managed System of Internal Control Capability Level Domain can be seen in Table 4 .

Table 4. Capability Level Domain MEA 02

Domain	Achievement	Percentage	Description
MEA 02.01	2,17	37%	Partially
MEA 02.02	2,00	38%	Partially
MEA 02.03	1,67	37%	Partially
MEA 02.04	1,83	37%	Partially
MEA 02.05	2,33	39%	Partially
MEA 02.06	1,83	30%	Partially
Σ MEA 02	1,97	36%	Partially

From the results of the assessment above it can be concluded that Domain MEA 02 is still below 50% and is categorized as Partially or not all have been realized properly and reached the target.

The results of the Capability Level Domain MEA 03 Managed Compliance With External Requirements can be seen in Table 5.

Table 5. Capability Level Domain MEA 03

Domain	Achievement	Percentage	Description
MEA 03.01	2,50	42%	Partially
MEA 03.02	2,33	39%	Partially
MEA 03.03	1,50	27%	Partially
MEA 03.04	2,00	33%	Partially
MEA 03.05	2,17	36%	Partially
MEA 03.06	2,17	39%	Partially
Σ MEA 03	2,11	36%	Partially

From the results of the assessment above it can be concluded that Domain MEA 03 is still below 50% and is categorized as Partially or not all have been realized properly and reached the target. The results of the MEA 04 Managed Assurance Domain Level Capability assessment can be seen in Table 6.

Table 6. Capability Level Domain MEA 04

Domain	Achievement	Percentage	Description
MEA 04.01	2,67	54%	Largely
MEA 04.02	2,33	45%	Partially
MEA 04.03	0,83	21%	Partially
MEA 04.04	1,50	31%	Partially
MEA 04.05	1,50	31%	Partially
MEA 04.06	1,67	43%	Partially
Σ MEA 03	1,75	38%	Partially

From the results of the assessment above it can be concluded that Domain MEA 04 is still below 50% and is categorized as Partially or not all have been realized properly and reached the target. The results of the Maturity Level Assessment for all domains can be seen in Table 7.

Table 7. Maturity Level Domain MEA01-MEA04

Objective Domain	Achievement
MEA 01	2,17
MEA 02	1,97
MEA 03	2,11
MEA 04	1,75

From the table above, it is known that in the MEA 01 to MEA 04 Domains, the management of activities related to monitoring and evaluating IT performance, internal control, external requirements, and IT governance has not yet been carried out by existing standards.

Furthermore, the translation of the GAP value obtained from the value of each current process domain is then added to the expected value of the design factor results from the previously processed data. The gap level in the MEA 01 objective domain can be seen in Table 8.

Table 8. Level of Gap in the MEA01 domain

Domain	Saat ini	Yang diharapkan	Nilai GAP
MEA 01.01	2,83	4,00	1,17
MEA 01.02	2,50	4,00	1,50
MEA 01.03	1,50	4,00	2,50
MEA 01.04	2,33	4,00	1,67
MEA 01.05	2,17	4,00	1,83
MEA 01.06	1,67	4,00	2,33
Σ MEA 01	2,17	4,00	1,83

From the data table above it can be seen that from the six process domains, MEA 01.03 obtained the largest GAP value of 2.50. While the MEA 01.01 process domain obtained the smallest GAP value with a value of 1.17. Referring to the COBIT 2019 Control Objectives guidelines, this shows that the process of managing activities related to monitoring and evaluation of IT performance has not been categorized as reaching the target, because the evaluation has not been carried out by existing standards. The gap level in the MEA 02 objective domain can be seen in Table 9.

From the data table above it can be seen that from the six process domains, MEA 02.03 obtained the largest GAP value of 2.33. While the MEA 02.05 process domain obtained the smallest GAP value with a value of 1.67. Referring to the COBIT 2019 Control Objectives guidelines, this shows that the management process regarding activities related to internal control monitoring and evaluation has not been categorized as reaching the target, because the evaluation has not been carried out by existing standards. The gap level in the MEA 03 objective domain can be seen in Table 10.

Table 9. Level of Gap in the MEA 02 domain

Domain	Now	Expectation	GAP Value
MEA 02.01	2,17	4,00	1,83
MEA 02.02	2,00	4,00	2,00
MEA 02.03	1,67	4,00	2,33
MEA 02.04	1,83	4,00	2,17
MEA 02.05	2,33	4,00	1,67
MEA 02.06	1,83	4,00	2,17
Σ MEA 02	1,97	4,00	2,03

Table 10. Level of Gap in the MEA 03 domain

Domain	Now	Expectation	GAP Value
MEA 03.01	2,50	4,00	1,50
MEA 03.02	2,33	4,00	1,67
MEA 03.03	1,50	4,00	2,50
MEA 03.04	2,00	4,00	2,00
MEA 03.05	2,17	4,00	1,83
MEA 03.06	2,17	4,00	1,83
Σ MEA 03	2,11	4,00	1,89

From the data table above, it can be seen that the six mantra domains of the MEA 03.01 process obtained the smallest GAP value with a value of 1.50. Referring to the COBIT 2019 Control Objectives guidelines, this shows that the management of activities related to monitoring and evaluation of external requirements has not been categorized as reaching the target, because the evaluation has not been carried out by existing standards. The level of gap in the objective domain of MEA 04 can be seen in Table 11.

From the data table above it can be seen that from the six process domains, MEA 04.03 obtained the largest GAP value of 3.17. While the MEA 04.01 process domain obtained the smallest GAP value with a value of 1.33. Referring to the COBIT 2019 Control Objectives guidelines, this shows that the management of activities related to the monitoring and evaluation of IT governance has not been categorized as reaching the target, because the evaluation has not been carried out by existing standards.

Table 11. Level of Gap in the MEA 03 domain

Domain	Now	Expectation	GAP Value
MEA 04.01	2,67	4,00	1,33
MEA 04.02	2,33	4,00	1,67
MEA 04.03	0,83	4,00	3,17
MEA 04.04	1,50	4,00	2,50
MEA 04.05	1,50	4,00	2,50
MEA 04.06	1,67	4,00	2,33
Σ MEA 04	1,75	4,00	2,25

CONCLUSIONS

Based on the research conducted, the conclusion Evaluation of the Maturity Level of Information Technology Governance at Wahana Visi Indonesia Wamena Branch using the 2019 COBIT Framework, it can be concluded that the capability level and maturity level value in the objective domain of MEA 01 is 2.17 with a percentage of 41 % categorized Partially, the objective domain MEA 02 obtains a value of 1.97 with a percentage of 36% and is in the Partially category, the objective domain MEA 03 obtains a value of 2.11 with a percentage of 36% and enters the Partially category, the object domain MEA 04 obtained a value of 1.75 with a percentage of 38% and entered the Partially category. Each domain process that is in it produces a tension level value or GAP value for each of the selected domain objectives based on design factors. Domain MEA 01 got a score of 1.83, domain MEA 02 got a score of 2.03, domain MEA 03 got a score of 1.89, and domain MEA 04 got a score of 2.25 out of the expected maximum value of 4.00.

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