

Evaluating of IT Services on Accurate Application Using COBIT 5 (Case Study : PT. SS Dinamika)

<http://dx.doi.org/10.28932/jutisi.v4i2.781>

Calvin Tjee^{#1}, Kevin Christianto^{#2}

^{#1,2}Departments of Information Systems, Bunda Mulia University
Jl. Lodan Raya No.2, Jakarta Utara 14430

¹calvintjee@gmail.com

²kchristianto@bundamulia.ac.id

Abstract— PT. SS Dinamika is a company engaged in marketing umbrella throughout Indonesia to meet customer's demand. Places that have been marketed and still making orders are Medan, Sumatera, and Palembang. This company has implemented an Information System specifically Accurate Accounting Software to support the company's business processes. Unfortunately, the problem arises where the company experiences a delay in entering sales data because the administration has not fully mastered the application. The company's IT condition has never been measured and audited. Therefore, an audit measurement is needed to measure the company's business processes, applications, and corporate strategy. In this audit, the measurement uses the framework of COBIT 5 which is focused on the DSS01, DSS02 and DSS04 domain (Deliver, Service and Support). The result of this research after analyzing the data is the value of Capability Level on DSS01, DSS02 and DSS04 are at level 1 (Performed Process) and the Expected Level are at level 3. The conclusion of this research is the company has already run its business process pretty well. Unfortunately, the company still has to make some improvements on each DSS domain that has been analyzed.

Keywords— Audit, Accurate, COBIT 5, DSS, PT. SS Dinamika

I. INTRODUCTION

These days, Science and Technology experience great development [1]. Technology makes the data collection process much easier than before. Manual data collection could cause data loss or inaccurate data [2]. Initially, suitable work fields to use computers as data processing tool is activities with the process of inputting documents with relatively large in number but simple processing formula.

PT. SS Dinamika is a company engaged in marketing umbrella products throughout Indonesia to meet customer's demand. Places that have been marketed and still making reservations are Medan, Sumatera, and Palembang.

Currently, PT. SS Dinamika has implemented Information System specifically Accurate Accounting Software application to support its business process. Accurate Accounting Software is an application that can

help the company to input data such as sales data, finance and the stock of goods [3]. However, the company experiences a delay in entering sales data because the administration has not fully mastered the application. The company's IT conditions have never been audited.

Take in account that an information system audit uses a standard which can provide a detailed description and exact standard [4], this information system audit research was using COBIT 5 which is focused on the DSS01, DSS02 and DSS04 domains (Deliver, Service and Support).

The author conducted this audit research aimed to determine the Capability Level and provide recommendations for the existing problems in the company [5], to assess, monitor and ensure that the information system that is being used is running well and the information provided is accurate and free from any fraud by the employee themselves.

II. LITERATURE REVIEW

A. Information Systems

According to James A. O'Brien, defining information systems is a combination of each unit managed by the user or human, hardware, software, computer network and data communications network, as well as a database that collects, transforms, and disseminates information within an organization [6].

B. Audit

According to Spencer Pickett, explaining the word audit comes from Latin language *audire* which means to hear. The story behind latin language *audire* which means to hear is in the past if a business owner felt there is a mistake or manipulation, then he would listen to the testimony of a certain person. In that time, if the business owner suspects a fraud, they will appoint a particular person to check the account/company account. The appointed auditor heard and then his opinion statement on the authenticity of the company's records was heard by the interested parties [7].

C. Information Systems Audit

According to ISACA, defining information system audit is the process of collection and evaluating of evidence to determine whether information systems and information technology have been keeping the data and running properly to achieve operational objectives [8].

D. Accurate Accounting Software

Accurate Accounting Software is an application that can help the company to input data such as sales data, finance and the stock of goods. This Accurate Software is the first application developed by CPS Soft. Since 2000, this

application is produced in Indonesia and has already been trusted by many companies to help their company's bookkeeping [3].

E. COBIT 5

COBIT 5 is based on the developments of COBIT 4.1 which is integrated by Val IT, Risk IT, ITIL, and ISO standard. COBIT 5 enable related information and technology to be holistically managed for the entire enterprise, covering the overall business area and functional with considering the advantages of IT for internal and external stakeholders [9].

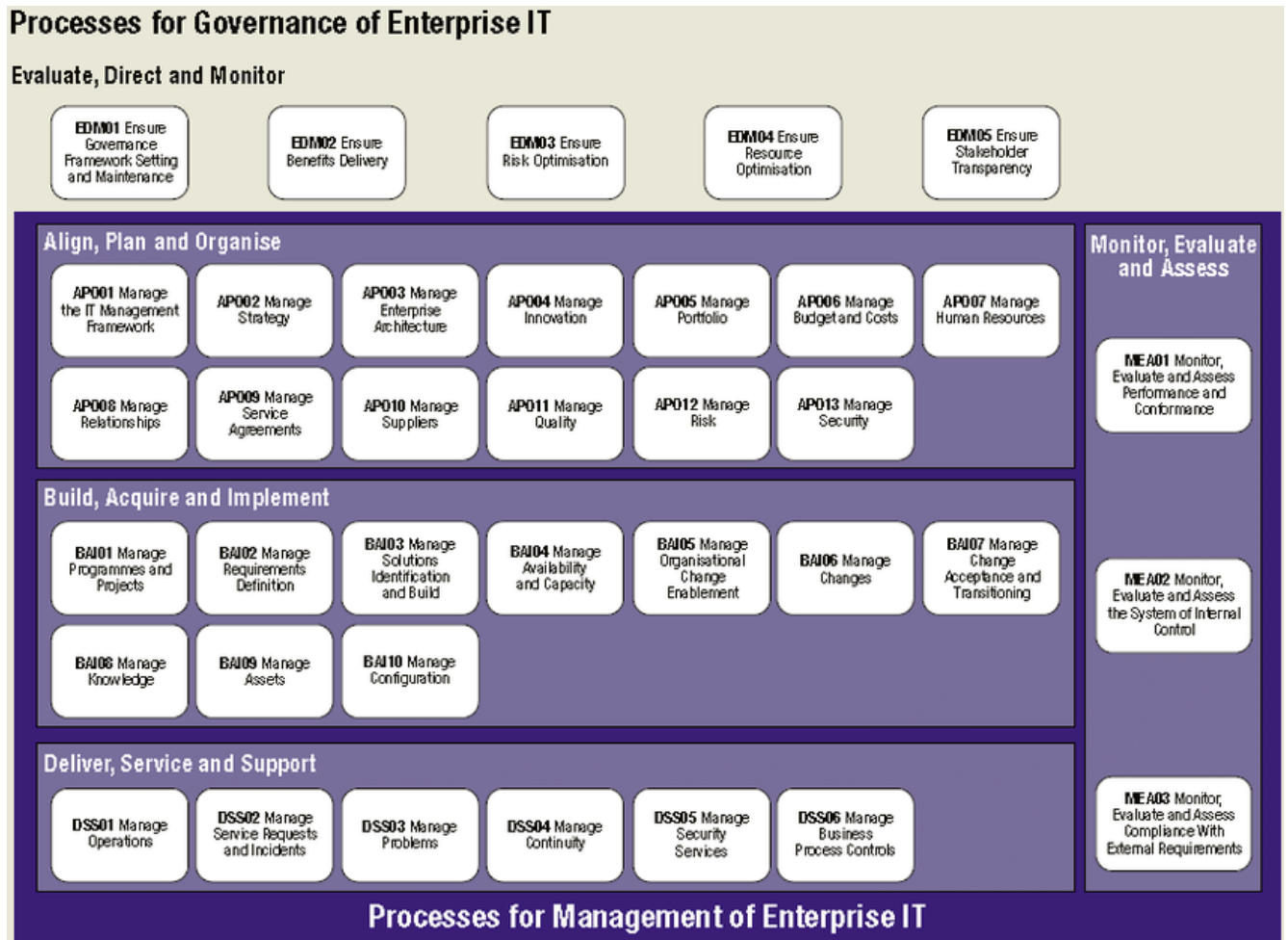


Figure 1. COBIT 5 Domain and Process

F. COBIT 5 Domains

As can be seen in Figure 1 that COBIT 5 have Domain and Process, each domain has a process which uses to achieve the goal. There are 4 Domain and 32 Process for management of enterprise IT that have been divided into each domain. Domain and its Process are as follows [10]:

1. Align, Plan and Organize (APO), with 13 process
2. Build, Acquire and Implement (BAI), with 10 process

3. Deliver, Service and Support (DSS), with 6 process
4. Monitor, Evaluate and Assess (MEA), with 3 process

G. Capability Level of COBIT 5

The COBIT 5 framework has a Capability model used for process assessment. The process Capability Level can be seen in Figure 2 below [11].

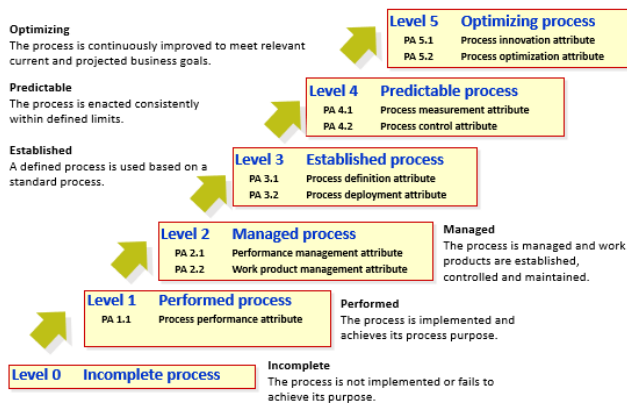


Figure 2. Process Capability Levels

As can be seen in Figure 2, the process Capability Levels have 5 levels. The following are the explanation of each level:

1. **Level 0: Incomplete Process**
In this level, it didn't run the IT process that should be running or has not achieved the goal of the IT process.
2. **Level 1: Performed Process**
In this level, the IT process has been successfully run and the goal of the IT process has fully been achieved.
3. **Level 2: Managed Process**
In this level, it is running the IT process and has achieved the goal is implemented in a well-managed, so obtained a better assessment because the process and achievement are being well done. Management is in the form of process planning, evaluation and adjustment for the better condition.
4. **Level 3: Established Process**
In this level, it has the IT process that has been standardized within the organization as a whole, which means that it already has a standard process in the organization.
5. **Level 4: Predictable Process**
In this level, it is running a fixed IT process, such as time constraints. This boundary can be obtained from the measurements that have been done during the execution of the IT process.
6. **Level 5: Optimizing Process**
In this level, it has already run various innovations and make continuous improvements to improve its capabilities.

H. Scoring Scale COBIT 5

In assessing the Capability Level, a scoring scale is set to assess the attribute process of each level. The scoring scale is as follows [12]:

1. **N: Not Achieved (0 – 15%)**
On the N scale (Not Achieved), there is a little or no attribute achievement evidence of the assessed process.

2. **P: Partially Achieved (15% – 50%)**
On the P scale (Partially Achieved), there is some evidence of approach and some attribute achievement that are assessed. Some aspects of attribute achievement may not be predictable.
3. **L: Largely Achieved (50% – 85%)**
On the L scale (Largely Achieved), there is evidence of a systematic approach and significant achievement of the attribute process that is being assessed. Some weakness of these attributes may appear in the assessed process.
4. **F: Fully Achieved (85% – 100%)**
On the F scale (Fully Achieved), there is a complete evidence and a systematic approach and also full achievement of the attribute process being assessed. There are no attribute-related weaknesses in the assessed process.

I. Previous Research

A research by Johannes Fernandes Andry discusses the performance of information technology governance to determine how far the information technology ability at the Training Center in Jakarta. This research used COBIT 5 which is focused on DSS domains. The results of this research reveal that business and IT management were aware of the impact of not managing the performance and the capacity. The assessment results of this research obtained an average of 2.2 to 2.8 (Managed Process) [13].

A research by Ulfatissa Cahyani, Ismiarta Aknuranda, and Andi Reza Perdanakusuma aimed to evaluate whether the implemented information technology at BPJS employment Mataram branch is in accordance with the expected result. This research used COBIT 5 which is focused on DSS domains. The results of this research were to provide recommendations to improve business process activities by optimally utilizing the application and create Standard Operating Procedures (SOP). The results of this research were DSS01 and DSS02 are at level 2 (Managed Process) and DSS03, DSS04, DSS05, DSS06 are at level 1 (Performed Process) [14].

III. RESEARCH METHODOLOGY

In this research, the method that is being used to get data from the interview and to solve the problem in PT. SS Dinamika can be seen in Figure 3 below [15].

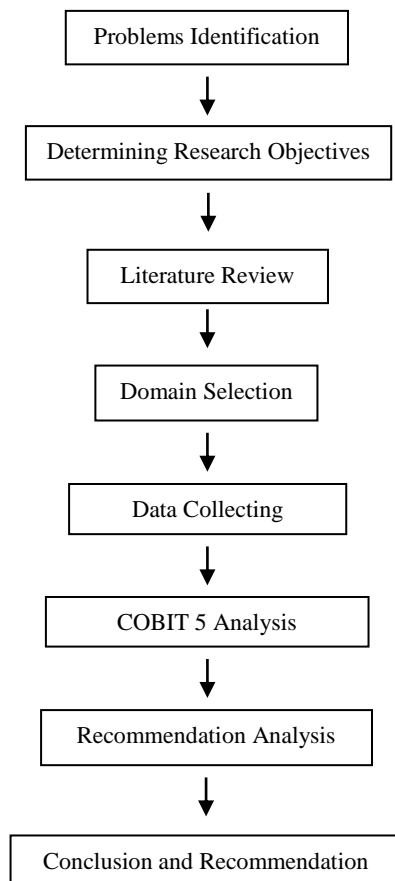


Figure 3. Research Methodology

Based on the steps in Figure 3, this research has the following steps:

A. Problems Identification

The first stage in conducting the audit is to identify the problem in the company. Problems identification in this research is done to find the problems that exist in PT. SS Dinamika, in order to determine the purpose of this research.

B. Determining Research Objectives

After identifying the problem at PT. SS Dinamika then determines the purpose of this research. The purpose of the audit conducted at the company is to provide a recommendation to solve company's problems which is the company experience a delay in entering sales data because the administration/employees at the company have not fully mastered the application.

C. Literature Review

After determining the purpose of the research, then the next step is to do a literature review. The literature review is done by reading articles, journal references, final projects, and books which related to the research object, information system audit by using the COBIT 5 framework.

D. Domain Selection

After finding the problems in PT. SS Dinamika then the domain selection is being conducted in this research. Domain selection for this audit research in the company is using the COBIT 5 framework with DSS01, DSS02, and DSS04 domains.

E. Data Collecting

To get the result from this research, interviews were conducted on this research based on DSS01, DSS02 and DSS04 domain. For the interview at PT. SS Dinamika is based on DSS01, DSS02 and DSS04 domain by meeting the stakeholders to discuss the company, business processes and corporate's goal, then the relevant parties to be interviewed are the President Director of the company and IT Support on the company.

F. COBIT 5 Analysis

After conducting interviews with various parties at PT. SS Dinamika, a data analysis is performed. The analysis used in this research are as follows:

1. Capability Level Analysis

The measurement of Capability Level is obtained after the result of the interview has been given to the related party. After that, Capability Level will be obtained from the condition of the company

2. Expected Level Analysis

The measurement of Expected Level is performed after measuring Capability Level Analysis. Expected Level is an urge to improve the Capability Level that has been obtained by the company.

3. Gap Analysis

Gap analysis is performed after measuring the Expected Level Analysis. This Gap Analysis defines the gap between the Capability Level and the Expected Level and also this analysis will show which process of the processes that need to be improved.

G. Recommendation Analysis

Recommendation Analysis is performed after doing the Gap Analysis. This analysis identifies the most suitable solution/recommendation for the company's problem. This stage is done based on the gap analysis and Capability Level that has been obtained from the measurement results at the company. These recommendations are expected to help the company solve its problems.

H. Conclusion and Recommendation

The conclusion of this research contains the results of the research. On the other hand, Recommendation contains suggestions for further research.

IV. RESULTS AND DISCUSSION

After getting data from the interview, the researchers analyzed the result from an interview. The following are the

results of Capability Level, Expected Level, and Recommendation:

A. DSS01 Manage Operation

This domain is to coordinate and execute operational activities and procedures which is necessary to provide internal IT services and outsource. Here are the subdomains of DSS01:

1. DSS01.01 Perform Operational Procedures

The process in this subdomain is to protecting and implementing reliable and consistent operational procedure and operational task.

In this subdomain, the researchers have found that the company always conducts business reviews for 3-4 months. The company orders umbrellas from China by email, the order is made for 2 months before the goods are delivered and the goods stock must always be ready. The company always backs up data every day before the office hours finished.

The result of Capability Level assessment in this subdomain DSS01.01 reached PA 2.2 which is at level 2 (Managed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to make a Standard Operational Procedure (SOP) document to be seen by the employees.

2. DSS01.02 Manage Outsource IT

The process in this subdomain is to managing the operation of IT from the outside to protect the company information and the reliability of service delivery.

In this subdomain, the researchers have found that in the company, only sales administration, the stock of goods administration and finance that have the access to the system. Each administration has been trained on how to use the Accurate application only for the first time implement the Accurate application. The training was in a 5-day period and 3 times a day. The sales administration has not fully mastered the application and the company has discussed that the sales administration must use Ms. Excel and for the stock of goods administration and finance are keep using the Accurate application.

The result of Capability Level assessment in this subdomain DSS01.02 reached PA 2.1 which is at level 1 (Performed Process) and the Expected Level is at 3. The recommendation that can be given is the company is expected to request a written procedures/guidance on the use of Accurate application by developer and provide re-training to sales administration in using Accurate application along with testing in terms of the accuracy of entering data into the application to find out whether the sales administration is really capable in using it or not.

3. DSS01.03 Monitor IT Infrastructure

The process in this subdomain is to monitoring IT infrastructure, storing enough chronological information

in the log operations to allow reconstruction, review, and inspection of the operations timelines and other related activities or support operations.

In this subdomain, the researchers have found that the company always monitor their business processes both in terms of management and business at the end of each month. The company disposes of the documents that are more than 5 years old. If the company is having problems with the infrastructure, then every administration should report the problem.

The result of Capability Level assessment in this subdomain DSS01.03 reached PA 2.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to make a recording of the business process monitoring result at the end of each month and make a written procedure or Standard Operational Procedure (SOP) document.

4. DSS01.04 Manage The Environment

The process in this subdomain is to maintaining an action for protection from environmental factors. Pairing special equipment and devices to monitor and control the environment.

In this subdomain, the researchers have found that the company has standard rules such as not bringing foods to the IT area. In the IT area must turn on the AC.

The result of Capability Level assessment in this subdomain DSS01.04 reached PA 2.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to make a written procedure about the rules that exist within the company.

5. DSS01.05 Manage Facilities

The process in this subdomain is to managing facilities, including electrical equipment and communication, in accordance with legislation, technical and business requirements, vendor specification, and safety and health guidelines.

In this subdomain, the researchers have found that existing facilities at this company are not yet complete, such as there is no backup if power outages, there is no fire alarms and fire extinguisher. If the power goes out then the company must wait until the electricity is on. IT area facilities are already following the safety conditions.

The result of Capability Level assessment in this subdomain DSS01.05 reached PA 2.1 which is at level 1 (Performed Process) and the Expected Level is at 3. The recommendation that can be given is the company is expected to have a backup facility if the power outages to keep the business process running and make a written procedure if the environment within the company is having a problem.

After getting the data by interview. Here are the results of the attribute process of each sub DSS01 domain:

TABLE I
DSS01 DOMAIN ATTRIBUTE PROCESS

Domain	PA 1.1	PA 2.1	PA 2.2	PA. 31	PA 3.2
DSS01.01	F	F	F	N	N
DSS01.02	F	F	N	N	N
DSS01.03	F	F	N	N	N
DSS01.04	F	F	N	N	N
DSS01.05	F	L	N	N	N

As can be seen in Table I that attribute processes in DSS01.02, DSS01.03, DSS01.04, DSS01.05 domains are achieved in PA 2.1 (Fully Achieved and Largely Achieved), in the DSS01.01 domain is achieved in PA 2.2 (Fully Achieved).

After getting the results of the attribute process, then the results of the Capability Level can also be obtained. Here are the results of Capability Level, Expected Level, and Gap:

TABLE II
DSS01 DOMAIN CAPABILITY LEVEL AND EXPECTED LEVEL

Domain	Attribute Process	Capability Level	Expected Level	Gap
DSS01.01	2.2	2	3	1
DSS01.02	2.1	1	3	2
DSS01.03	2.1	1	3	2
DSS01.04	2.1	1	3	2
DSS01.05	2.1	1	3	2
Average		1.2	3	

As can be seen in Table II that the average of Capability Level which obtained in the DSS01 domain is 1 (Performed Process) and the Expected Level is at level 3.

B. DSS02 Manage Service Request and Incidents

This domain is to provide a timely and effective response to user's requests and the solution of all types of incidents. Here are the subdomains of DSS02:

1. DSS02.01 Define Incidents and Service Request Classification Schemes

The process in this subdomain is to determining the scheme and classification model of request and services.

In this subdomain, the researchers have found that the company could call the Accurate application's developer if the company faced any problem in using the application and currently the company has never experienced any problem on the Accurate application. The company does not have Standard Operating Procedures (SOP).

The result of Capability Level assessment in this subdomain DSS02.01 reached PA 1.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company

is expected to make a written procedure or Standard Operational Procedure (SOP) document.

2. DSS02.02 Record, Classify and Prioritize Request and Incidents

The process in this subdomain is for identifying, recording and classifying the service request and incident and setting priority according to the business service agreement.

In this subdomain, the researchers have found that the company has agreed with the Service Level Agreement (SLA) before using the Accurate application. The company may call the developer if there is a problem with the application and currently the company has not experienced any problems with the Accurate application. The company has lost the Service Level Agreement (SLA) documents.

The result of Capability Level assessment in this subdomain DSS02.02 reached PA 1.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to make a Standard Operational Procedure (SOP) and request assistance to the developer because of the loss of Service Level Agreement (SLA) document in the company.

3. DSS02.03 Verify, Approve and fulfill Service Request

The process in this subdomain is to selecting suitable demand procedure and ensuring that the service request meets the specified demand's criteria. Getting approval, if needed, and meets the demand.

In this subdomain, the researchers have found that in the Service Level Agreement (SLA), the company can call the Accurate application's developer to help the company if there is a problem with the application and currently the company has never experienced any problem with the application. In the Accurate application there is a Contact Us and Help menu to ask for help. The company has lost the Service Level Agreement (SLA) document.

The result of Capability Level assessment in this subdomain DSS02.03 reached PA 1.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to request assistance to the developer because of the loss of the Service Level Agreement (SLA) document in the company.

4. DSS02.04 Investigate, Diagnose and Allocate Incidents

The process in this subdomain is to identifying and recording the indication of an event, determining possible causes, and giving a resolution.

In this subdomain, the researchers have found that if there is a problem with the Accurate application, then

the company will call the IT Support to try solving the problems and if the IT Support can't solve it, then the company will call the developer and currently the company have never experienced any problem in using the application.

The result of Capability Level assessment in this subdomain DSS02.04 reached PA 1.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to make a written procedure or Business Continuity Planning (BCP) documents if there is a problem in the company.

5. DSS02.05 Resolve and Recover from Incidents

The process in this subdomain is to documenting, implementing and testing the identified solutions and take a recovery action to recover the service related to IT.

In this subdomain, the researchers have found that the company backup every administration data using USB and Harddisk as data storage and the company has experienced data loss and also if there is a data loss, then the administration has to re-enter the data/documents into the system.

The result of Capability Level assessment in this subdomain DSS02.05 reached PA 2.2 which is at level 2 (Managed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to make a written procedure on business process activities for each day and create Business Continuity Planning (BCP) documents if there is a problem in the company.

6. DSS02.06 Close Service Request and Incidents

The process in this subdomain is to verifying the satisfactory incident solution and/or meeting the demands and closing.

In this subdomain, the researchers have found that the company has never encountered any problems with the Accurate application. If there is a problem with the Accurate application, the company may call the developer.

The result of Capability Level assessment in this subdomain DSS02.06 reached PA 1.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to make a written procedure or Business Continuity Planning (BCP) if there is a problem in the company.

7. DSS02.07 Track Status and Produce Reports

The process in this subdomain is for tracking, analyzing, and reporting events and also requesting assistance to provide continuous improvement information.

In this subdomain, the researchers have found that if the administration is having a problem in the Accurate application then administrant must report the problem to IT Support for repair attempt, if it is failed to solve the problem, then the company will call the developer and currently the company has never experienced any problems with the Accurate application. The company has lost the Service Level Agreement (SLA) document.

The result of Capability Level assessment in this subdomain DSS02.07 reached PA 1.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to request assistance to the developer because of the loss of Service Level Agreement (SLA) document at the company and make a written procedure in case of a problem arises in the company.

After getting the data by interview. Here are the results of the attribute process of each sub DSS02 domain:

TABLE III
DSS02 DOMAIN ATTRIBUTE PROCESS

Domain	PA 1.1	PA 2.1	PA 2.2	PA. 31	PA 3.2
DSS02.01	F	N	N	N	N
DSS02.02	F	N	N	N	N
DSS02.03	F	N	N	N	N
DSS02.04	F	N	N	N	N
DSS02.05	F	F	F	N	N
DSS02.06	F	N	N	N	N
DSS02.07	F	N	N	N	N

As can be seen in Table III that attribute processes in DSS02.01, DSS02.02, DSS02.03, DSS02.04, DSS02.06 and DSS02.07 domains are achieved in PA 1.1 (Fully Achieved), in the DSS02.05 domain is achieved in PA 2.2 (Fully Achieved).

After getting the results of the attribute process, then the results of the Capability Level can also be obtained. Here are the results of Capability Level, Expected Level, and Gap:

TABLE IV
DSS02 DOMAIN CAPABILITY LEVEL AND EXPECTED LEVEL

Domain	Attribute Process	Capability Level	Expected Level	Gap
DSS02.01	1.1	1	3	2
DSS02.02	1.1	1	3	2
DSS02.03	1.1	1	3	2
DSS02.04	1.1	1	3	2
DSS02.05	2.2	2	3	1
DSS02.06	1.1	1	3	2
DSS02.07	1.1	1	3	2
Average		1.1	3	

As can be seen in Table IV that the average of Capability Level which obtained in the DSS02 domain is 1 (Performed Process) and the Expected Level is at level 3.

C. DSS04 Manage Continuity

This domain is for setting and maintaining a plan to allow system and IT users to respond to incidents and disruptions so that they can continue their business processes and to request IT services to maintain the availability of information. Here are the subdomains of DSS04:

1. DSS04.01 Define The Business Continuity Policy, Objectives and Scope

The process in this subdomain is to determine the policy and business continuity scope that is harmonic with the company's objectives and the stakeholders.

In this subdomain, the researchers have found that the company has agreed on Service Level Agreement (SLA) before using Accurate application, the developer will notify if there is any change on the Service Level Agreement (SLA) to the company but the company has lost the Service Level Agreement (SLA) document.

The result of Capability Level assessment in this subdomain DSS04.01 reached PA 2.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to make a Standard Operational Procedure (SOP) and request assistance to the developer because of the loss of Service Level Agreement (SLA) document in the company.

2. DSS04.02 Maintain a Continuity Strategy

The process in this subdomain is to evaluate the business continuity management option and selecting a cost-effective and continuous strategy that will assure the recovery and continuity of the company in facing disaster and other major interference.

In this subdomain, the researchers have found that the company is having a problem which is the delay in entering the sales data into Accurate application because the sales administration has not fully mastered the application, the company has discussed this problem and has decided that the sales department must use Ms. Excel first, for the stock of goods and finance of the company still using the Accurate application.

The result of Capability Level assessment in this subdomain DSS04.02 reached PA 2.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to request written procedure/guidance on the use of an Accurate application by the developer to the sales administration in order to understand its function and provide re-training on how to use the application.

3. DSS04.03 Develop and Implement a Business Continuity Response

The process in this subdomain is to developing a business continuity planning (BCP) based on a strategy that documented procedures and information to prepare to be used in an event in order for the company to continue its critical activities.

In this subdomain, the researchers have found that if the company is experiencing any shortages and problems in its business process then the company has to immediately report the problem to the director to be considered. The company does not have any Business Continuity Planning (BCP) documents.

The result of Capability Level assessment in this subdomain DSS04.03 reached PA 2.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to make a written procedures or Standard Operational Procedures (SOP) documents and make a written Business Continuity Planning (BCP) if there is a problem in the company.

4. DSS04.04 Exercise, Test, and Review The BCP

The process in this subdomain is to testing the continuous regulations to implement the recovery plan against the predetermined results and to enable innovative solutions to be developed and helping to verify over time that the plan will proceed as anticipated.

In this subdomain, the researchers have found that each administration was given a training on how to use Accurate application, only at the first time implement the Accurate application for 5 days of training 3 times in 1 day, the researchers have found that the sales administration has not fully mastered in using Accurate application so they have to use Ms. Excel. The company does not have any Business Continuity Planning (BCP) documents.

The result of Capability Level assessment in this subdomain DSS04.04 reached PA 2.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to request written procedure/guidance on the use of Accurate application by developer to the sales administration in order to understand its function and provide re-training on how to use the application along with testing the administrant in terms of the accuracy of entering data into the application to find out whether the administration is really capable of using it or not.

5. DSS04.05 Review, Maintain and Improve The Continuity Plan

The process in this subdomain is in reviewing management on the continuity ability on a regular basis to ensure a continuous compatibility, adequacy, and effectiveness. Managing plan changes according to the change control process to ensure that continuity plans are maintained and continue to reflect the actual business requirements.

In this subdomain, the researchers have found that the company has already discussed the problem with the sales administration that has not fully mastered the usage of the Accurate application and the sales administration is required to use Ms. Excel. The company does not have any Business Continuity Planning (BCP) documents.

The result of Capability Level assessment in this subdomain DSS04.05 reached PA 2.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to request written procedure/guidance on the use of an Accurate application by the developer to the sales administration in order to understand its function and make a written Business Continuity Planning (BCP) if there is a problem in the company.

6. DSS04.06 Conduct Continuity Plan Training

The process in this subdomain is to providing regular training sessions about procedures and roles and responsibilities in case of disruption to all internal and external related parties.

In this subdomain, the researchers have found that each administration was given training in using the Accurate application to all administrations, only at the first time implement the Accurate application for 5 days of training 3 times in 1 day.

The result of Capability Level assessment in this subdomain DSS04.06 reached PA 2.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to make a one-day test if the company wants to do retraining on the use of Accurate application by developer and the test is expected to be tested in terms of accuracy in entering the data into the Accurate application in order to see if the administration is really capable in using it or not and to make a written Business Continuity Planning (BCP) if there is a problem in the company.

7. DSS04.07 Manage Backup Arrangements

The process in this subdomain is to maintaining the availability of important business information.

In this subdomain, the researchers have found that the company does backups data every day before the office hours end, the Accurate data are always being back up using USB and Harddisk as storage. The company does not have any Business Continuity Planning (BCP) documents.

The result of Capability Level assessment in this subdomain DSS04.07 reached PA 2.2 which is at level 2 (Managed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to make a written procedure or Standard Operational Procedure (SOP) document and make a written Business Continuity Planning (BCP) if there is a problem in the company.

8. DSS04.08 Conduct Post-Resumption Review

The process in this subdomain is to assessing the adequacy of Business Continuity Planning (BCP) after the resumption of business process and services after an interruption occurs.

In this subdomain, the researchers have found that in the company, there is no any Business Continuity Planning (BCP) document. If there is a problem with the company, the company will discuss it first.

The result of Capability Level assessment in this subdomain DSS04.08 reached PA 2.1 which is at level 1 (Performed Process) and the Expected Level is at level 3. The recommendation that can be given is the company is expected to make a written procedure or Standard Operational Procedure (SOP) document and to create a written Business Continuity Planning (BCP) if there is a problem in the company.

After getting the data by the interview. Here are the results of the attribute process of each subdomain DSS04:

TABLE V
 DSS04 DOMAIN ATTRIBUTE PROCESS

Domain	PA 1.1	PA 2.1	PA 2.2	PA. 31	PA 3.2
DSS04.01	F	F	N	N	N
DSS04.02	F	L	N	N	N
DSS04.03	F	F	N	N	N
DSS04.04	F	F	N	N	N
DSS04.05	F	F	N	N	N
DSS04.06	F	F	N	N	N
DSS04.07	F	F	L	N	N
DSS04.08	F	F	N	N	N

As can be seen in Table V that attribute processes in DSS04.01, DSS04.02, DSS04.03, DSS04.04, DSS04.05, DSS04.06, DSS04.08 domains are achieved in PA 2.1 (Fully Achieved and Largely Achieved), in the DSS04.07 domain is achieved in PA 2.2 (Fully Achieved and Largely Achieved).

After getting the results of the attribute process, then the results of the Capability Level can be obtained. Here are the results of Capability Level, Expected Level, and Gap:

TABLE VI
DSS04 DOMAIN CAPABILITY LEVEL AND EXPECTED LEVEL

Domain	Attribute Process	Capability Level	Expected Level	Gap
DSS04.01	2.1	1	3	2
DSS04.02	2.1	1	3	2
DSS04.03	2.1	1	3	2
DSS04.04	2.1	1	3	2
DSS04.05	2.1	1	3	2
DSS04.06	2.1	1	3	2
DSS04.07	2.2	2	3	1
DSS04.08	2.1	1	3	2
Average		1.12	3	

As can be seen in Table VI that the average value of Capability Level which obtained in the DSS04 domain is 1 (Performed Process) and the Expected Level is at level 3.



Figure 4. The Results of Capability Level and Expected Level on the DSS01, DSS02, and DS04 domains

As can be seen in Figure 4 that the results of Capability Level on DSS01, DSS02 and DSS04 are at level 1 (Performed Process) and the Expected Level is at level 3. It can be concluded that the company should improve in terms of its procedure because the Expected Level is pretty far or at level 3.

V. CONCLUSION

The conclusion of this research at PT. SS Dinamika is that the company has already run its business process pretty well and has already prepared for repair if there is a problem in the company. Unfortunately, the company still has to make some improvements on each DSS domain that has been analyzed.

The first domain that the researchers have analyzed is a DSS01 domain. This domain reached Capability Level 1 and Expected Level is 3. The recommendation for the DSS01 domain that related to the problem is the company is expected to request a written procedures/guidance on the use of an Accurate application by the developer and provide re-training to sales administration in using Accurate application.

The second domain is a DSS02 domain. This domain reached Capability Level 1 and Expected Level is 3. The recommendation for the DSS02 domain that related to the problem is the company is expected to request to the developer because of the loss of the Service Level Agreement (SLA) document at the company.

The third domain is a DSS04 domain. This domain reached Capability Level 1 and Expected Level is 3. The recommendation for DSS04 domain that related to the problem is the company is expected to make a one-day test if the company wants to do retraining on the use of Accurate application by developer and the test is expected to be tested in terms of accuracy in entering the data into the Accurate application in order to see if the sales administration is really capable in using it or not and to make a written Business Continuity Planning (BCP) if there is a problem in the company.

VI. RECOMMENDATION

Recommendations that can be given for this audit research is PT. SS Dinamika is expected to makes several improvements against the delay of entering sales data based on recommendations that we have given.

REFERENCES

- [1] Wella, "Audit Sistem Informasi Menggunakan Cobit 5.0 Domain DSS Pada PT. Erajaya Swasembada, TBK", *Jurnal Ultima Infosys*, vol. 7, pp. 33-44, no.1, Juni 2016.
- [2] Hasibuan. M. S, "Design dan Implementasi E-Jurnal Sebagai Peningkatan Layanan Jurnal di Kopertis Wilayah 2", *Seminar Nasional Aplikasi Teknologi Informasi*, ISSN: 1907-5022, Yogyakarta, pp. A-46 – A-50, 19 Juni 2010.
- [3] Sukmajaya. I. B. Andry. J. F, "Audit Sistem Informasi Pada Aplikasi Accurate Menggunakan Model Cobit Framework 4.1 (Studi Kasus: PT. Setia Jaya Teknologi)", *Seminar Nasional Teknoka*, ISSN: 2502-8782, Jakarta, pp. I-42 – I-51, 1-2 November 2017.
- [4] Sitinjak. J. K. Fajar. A. Hanafi. R, "Penilaian Terhadap Penerapan Proses IT Governance Menggunakan Cobit Versi 5 Pada Domain BAI Untuk Pengembangan Aplikasi Studi Kasus IPOS di PT. Pos Indonesia", *E-Proceeding of Engineering*, ISSN: 2355-9365, vol. 2, pp. 5334-5343, no.2, Agustus 2015.
- [5] Darenoh. M. P. Manuputty. A. D. Surachman. F, "Evaluasi Tingkat Kapabilitas Kinerja Layanan TI pada Layanan Internet Bidang A Menggunakan Framework Cobit 5 Domain MEA 01 (Studi Kasus: Satuan Organisasi XYZ-Lembaga ABC)", *Jurnal Teknik Informatika dan Sistem Informasi (JUTISI)*, vol. 4, pp. 58-66, no. 1, April 2018.
- [6] Brien'O. A. J, *Pengantar Sistem Informasi*, Jakarta: Salemba Empat, 2010"
- [7] S. Gondodiyoto, *Audit Sistem Informasi Pendekatan COBIT*, Jakarta: Mitra Wacana Media, 2007.
- [8] ISACA, *Cisa Review Manual 26th Edition*, USA: Information Systems Audit and Control Association, 2016.
- [9] Noorhasanah. Winarno. W. W. Adhipta. D, "Evaluasi Tata Kelola Teknologi Informasi Berbasis Framework COBIT 5", *Seminar Nasional Teknologi Informasi dan Multimedia*, ISSN: 2302-3805, Yogyakarta, pp. 1.2-1 – 1.2-6, 6-8 Februari 2015.
- [10] Sihotang. H. T. Sagala. J. R, "Penerapan Tata Kelola Teknologi Informasi dan Komunikasi Pada Domain Align, Plan, and Organize (APO) dan Monitor, Evaluate and Access (MEA) Dengan Menggunakan COBIT 5 Studi Kasus: STMIK Pelita Nusantara Medan", *Jurnal Mantik Penusa*, vol. 18, pp. 90-96, no. 2, Desember 2017.

- [11] Ekowansyah. E. Chrisnanto. Y. H. Puspita. Sabrina. N, "Audit Sistem Informasi Akademik Menggunakan COBIT 5 di Universitas Jenderal Achmad Yani", *Seminar Nasional Komputer dan Informatika (SENASKI)*, ISBN: 978-602-60250-1-2, pp. 201-206, Bandung, 29 Agustus 2017.
- [12] Andry. J. F. Christianto. K, *Audit Menggunakan COBIT 4.1 dan COBIT 5 dengan Case Study*, Yogyakarta: Teknosain, 2018.
- [13] Andry. J. F, "Audit of IT Governance Based on COBIT 5 Assessments: A Case Study", *Teknosi*, vol. 2, pp. 27-34, no. 2, Agustus 2016.
- [14] Cahyani. U. Aknuranda. I. Perdanakusuma. R. A, "Evaluasi Layanan BPJSTK Mobile Dengan Menggunakan Domain Deliver, Service and Support Berdasarkan Framework COBIT 5 (Studi Kasus: BPJS Ketenagakerjaan Cabang Mataram)", *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komunikasi*, vol. 2, pp. 2382-2391, no. 8, Agustus 2018.
- [15] Jelvino. Andry. J. F, "Audit Sistem Informasi Absensi pada PT. Bank Central Asia Tbk Menggunakan COBIT 4.1", *Jurnal Teknik Informatika dan Sistem Informasi (JUTISI)*, vol. 3, pp. 259-268, no. 2, Agustus 2017.