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The Effectiveness of Continuous Auditing Implementation: Developing Automated Audit Systems for Fraud and Error Detections

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ABSTRACT

Continuous Auditing is a new approach that allows auditors to understand control points, control rules thoroughly, and system controls and with more frequent, automated data analysis; hence increased audit relevance and reliability will ultimately improve audit quality. This paper aims to prove the effectiveness of Continuous Auditing in bridging auditing with the challenges of detecting fraud and errors. In the KKK Department Store, Continuous Auditing was proven to significantly improve the audit quality and internal control of the organization, with a very significant decrease in audit Findings in 2012 and 2013. The continuous audit Findings in 2012 decreased by 75.76% or decreased by 3,523 from the Findings in 2011 followed by a decrease in Findings of 81.44% or 3787 Findings from 2011 to 2013. Manual audit Findings also decreased very significantly by 96.19% or 733 Findings from 2011 to 2012 and a decrease of 99.74% or by 760 Findings from 2011 to 2013. This significant decrease in continuous auditing Findings was due to real-time audits, population data, not samples, and continuous improvement of parameters. Another important factor that significantly influences the effectiveness of continuous auditing is the interaction between the continuous auditing component, the owner, the internal auditor, and all related parties. Strong leadership from the owner, efficient and effective interaction from internal auditors, inherent and tight supervision and strong motivation make continuous auditing a reliable tool or method that helps management achieve its goals. Continuous Auditing has proven to be very significant in improving audit quality and organizational internal control but has proven ineffective in handling transactions involving manual transactions and collusions. This study looks at two key controls: "checking whether there is a Receiving Report made more than the date specified on the Purchase Order" and "checking whether there is a Receiving Report that is not in accordance with the authorized purchasing order". An effective solution is eliminating such manual transactions or authorizations made through systems with inherent control. This solution was implemented in 2013 and successfully resolved the issue. A continuous audit approach is an approach that is efficient and effective as well as sustainable and can provide timely signals in dealing with fraud and errors through internal control and risk mitigation.

Keywords: *Audit Systems, Audit Quality, Continuous Auditing, Error, Fraud.*

INTRODUCTION

Techniques, methods and technological sophistication as well as the need for Continuous Auditing have been widely discussed by academics, consultants, accounting professionals and educational institutions for many years. They suggest research for further studies on the use of Continuous Auditing and increasing the effectiveness of Continuous Auditing that can serve as a decision support system that helps auditors make decisions that are more objective (Barr-Pulliam, 2019). Several researches conclude that Continuous Auditing is convincingly evaluates itself through technological adjustments and improvements, it also adapts to auditor's need in achieving the audit objectives set.

Continuous Auditing is a continuous risk assessment and control that enabled by technology and facilitated by an audit paradigm that shifts from periodic evaluation based on a sample of transactions to continuous evaluation derived from larger proportion of transactions. The continuous audit is a wide electronic auditing process that makes it possible for auditors to supply some degree of assurance on information concurrently with, or shortly after, the disclosure of information. Continuous audit consists of control, monitoring and assessment activities mainly implemented with information technology (KABAN, 2020). Continuous audit will be used to initiate audit plan activities and increase internal audit coverage, and develop the management risk-based knowledge of the organization as data are collected, analyzed, and reported (Shilts, 2017).

This research is the continues of previous research titled "Continuous auditing: Developing automated audit systems for fraud and error detections" (Antonio, 2014) to evaluate whether the application of continuous auditing is effective to minimize errors and fraud in the future. So that the research questions can be described as follows:

1. Is continuous auditing able to make itself more effective in detecting errors and fraud?
2. Is continuous auditing able to detect more effectively in detecting errors and fraud so that manual audit Findings will be less and less?

This research is limited to patterns and methods that have been known by the auditor in detecting errors and fraud, while new patterns or methods that have never occurred and outside those that have been mapped will not be detected.

LITERATURE REVIEW

Continuous Auditing

Traditionally, auditing conducted an audit of internal controls and data based on cycles and periods. Often audits are carried out very late even months after the activity occurred and these checks are also carried out based on a sample of data.

This will not be reflected the real situation and the evaluation becomes very late and has an impact on business losses and loss of trust from stakeholders. Continuous Auditing is a methodology that enables auditors to conduct audits in real time and comprehensively from those based on sample data to population (CICA/AICPA, 2019).

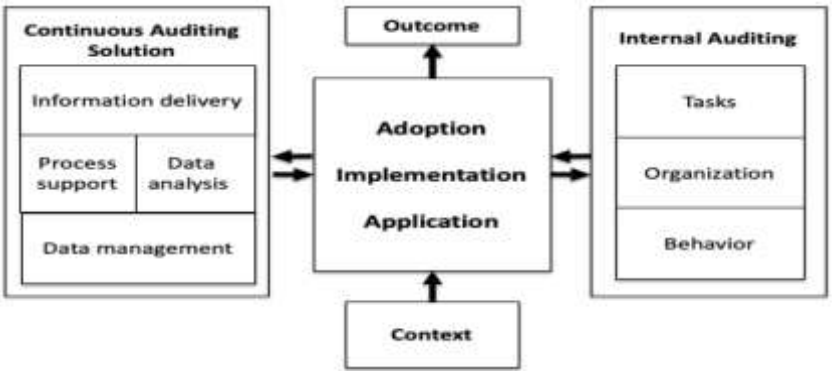
The Institute of Internal Auditors Research Foundation conducted a survey in 2003 and concluded that Continuous Auditing is important because it is seen as an absolute necessity in the future for complex transactions and audits conducted once a year are not sufficient to produce a good audit. In addition, there are factors that strongly support the implementation of continuous auditing: the complexity of business activities, the absence of physical evidence, increasingly large transactions and cloud technology (Dull et al., 2006). Continuous Auditing also ensures that policies, procedures, and standard operating procedures operate effectively and evaluates management's responsibility to assess the effectiveness of controls. Identification of control objectives and assertions and the establishment of automatic inspections are critical activities that must be a focus for management, especially on activities that are identified as not complying with what has been determined (Flowerday et al., 2006).

The excellence of Continuous Auditing lies in intelligence, efficient and effective examination of internal control as well as continuous risk mitigation to be able to provide timely signals especially when there are gaps and weaknesses for immediate follow-up and improvement. By changing the audit paradigm to Continuous Auditing, it is expected that auditors and management will develop a better understanding of the business environment and the risks as well as improve business performance.

Framework Continuous Auditing

Continuous Auditing promises an increase in audit quality and organizational performance through a change in the audit paradigm but this change cannot just occur in the audit, finance and accounting units without a change in all existing resources and management levels. A framework is needed to be able to continuously develop, maintain and evaluate Continuous Auditing. Rikhardsson, Singh and Best (Rikhardsson et al., 2019) propose a Continuous Auditing framework as follows:

Figure 1. Framework Continuous Auditing (Rikhardsson, Singh dan Best, 2019)



Continuous Auditing consists of four components: data management, process support, data analysis and information delivery. Data management is a function to obtain data, access data from different databases, process it and make it available for monitoring and analysis in real time. Process support is a function to support audits, document provision, operating activities and data analysis is a function to analyze data with audit objectives that have been set to see if there is a bias towards compliance. Information delivery is a function that is responsible for reporting, delivering information and distributing information.

Internal auditing is a function to ensure that organizational governance has been running effectively and efficiently in determining the direction and performance of the organization. In this framework, internal auditing has three components: behavior, organization and tasks. These three components will affect the application, implementation and adoption of Continuous Auditing. Behavior is management behavior including risk appetite, openness and experience in running the organization's operations. Organization includes risk assessment, internal control, compliance with the aim of increasing the effectiveness or efficiency of the organization. Tasks are activities that must be fulfilled to be able to achieve the audit objectives that have been set.

The success of application, implementation and adoption is an interaction between Continuous Auditing and Internal Auditing. The stronger the interaction, coordination and evaluation between these two entities, the higher the quality of audit. This study will identify the effectiveness of the implementation of Continuous Auditing by comparing the Findings from year to year and see whether both Continuous Auditing and internal auditing are getting stronger from year to year as a result of the increased quality of the audits.

Frauds dan Errors

Fraud has increased significantly over the last few years and professionals believe that this trend will only increase in the years to come. Fraud is an act of intentional omission or transaction to damage documents, records and financial

reports (CIFAS, 2021). Fraud can be identified by: manipulation, falsification or alteration of records and or documents to modify asset, liability, and capital records, misappropriation of assets, reduction or omission of transactions in accounting records, unproven transaction logs, and inappropriate accounting applications. While errors are unintentional actions in the preparation of financial records and reports, which result in inaccuracies consisting of: miscalculations in accounting records or financial statements, improper application of accounting standards, and misvaluation of changes in equity. There are two types of misstatements that can be considered by auditors as fraud, namely, first, misstatements arising from fraudulent financial reporting and second from misappropriation of assets. Misstatements resulting from fraudulent financial reporting can be in the form of intentional misstatements or omissions of amounts or disclosures in financial statements designed to mislead users of financial statements where the effect is that the financial statements are not presented in accordance with generally accepted accounting principles. Whereas misstatements arising from misappropriation of assets (sometimes referred to as theft or misappropriation of trust) involve the theft of an entity's assets where the effect of the theft causes the financial statements to not be presented, in all material respects, in accordance with GAAP (Antonio, 2014). This study consistently uses the definition of fraud and error as used in previous studies.

RESEARCH METHOD

This research uses both descriptive and explanatory studies. Where descriptive is used to describe the condition of the company in relation to the evaluation of audit Findings, which are expected to be minimal with the application of continuous auditing. The explanatory is used to explain how the components of continuous auditing and internal auditing interact to seek optimization of fraud and error detection.

Document analysis, observation and interviews are the main sources of information. Document analysis is carried out starting from the mapping of the Standard Operating Procedure (SOP) business process, internal control, business rules, audit rules, documents used to data structure documentation. The document analysis used is the latest version that has been updated with an evaluation of the Findings produced by continuous auditing. Interviews were conducted with a semi-structured approach starting with a series of questions and expanding as needed.

This study will examine the Findings produced by continuous auditing of purchasing data from 2011, 2012 and 2013 and compare the Findings to assess whether the implementation of continuous auditing has been effective and identify

which interaction components have an effect on the effectiveness of continuous auditing.

This research was conducted at the KKK Department Store. This Department Store was founded in 1978, and employs 348 employees. This Department Store has the following specifications:

- Building area 9,000 m^2
- Employees are divided into 2 shifts
- Departments (division by product group) have 127 departments
- Cashiers have 26 locations
- Data processing has been using software with Microsoft SQL Server database. This software has been integrated and build by the internal IT department
- Purchase in 2012 were 24,7923 documents with 2,134,262 detailed transaction records
- Purchase data in 2013 were 26,237 documents with detailed transactions of 2,611,344 records

Use Case Model

In this business entity, the use case can be described as shown in Figure 2. Basically the cashier will make sales and receive money from customers, this money receipt will be in the methods of cash, debit cards or credit cards. Sales made by the cashier will update the inventory file. This preparation will be monitored by the Sales Promotion Girl from each department to determine orders to suppliers. Before the order is sent to the supplier, the order must be authorized by the Salesman Supervisor and after that it is authorized by the Purchasing Manager then the order can be given to the Supplier. When the supplier sends the goods, the warehouse will receive it and at this time the recording of inventory and accounts payable will occur. And in time will be made the payment of the trade debt. For consignment inventory, trade payables are only recognized when the sale of consigned goods occurs and payments are made only after the trade payables are recognized. In addition to credit purchases, the organization still allows for cash purchases.

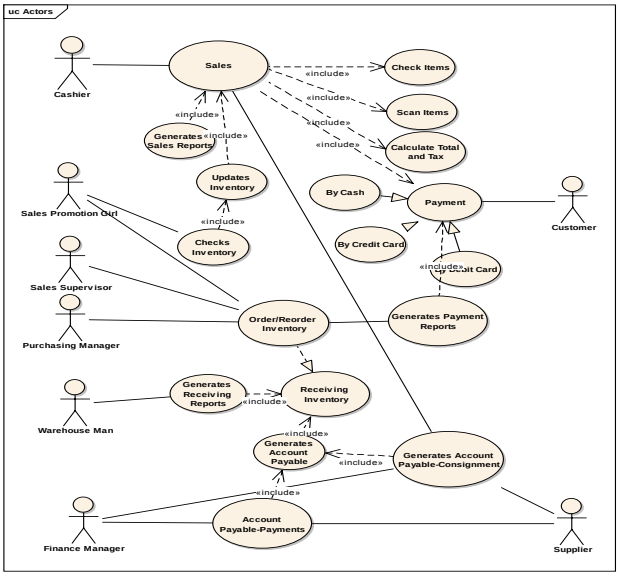


Figure 2. *Use Case Diagram*

Data Flow Diagram

Use case diagrams are used to gather the requirements of a system including internal and external influences to capture the dynamic aspect of a system (Waykar, 2015). In the development of applications DFD that are also referred to DAD (Diagram of Flow Data), the definition of DFD is a process of the data that describes, where are the data coming from, where are the data going out of the system, and then the data will be saved (Wulandari & Widiantoro, 2017). The use case diagram above basically be divided into two processes, called buying process and selling process. The form of the company's Purchase DFD is shown in Figure 3. DFD Purchasing has 4 main processes: (1) prepare purchasing lan, (2) place purchase order (PO), (3) receive inventory, (4) pay vendor.

Entity Relationship Diagram (ERD)

Entity Relationship Diagram (ERD) is a high-level conceptual database model to describe a system and its boundaries (Togatorop et al., 2021). ERD describes the entity-relationship model which is a combination of the concepts of entities, attributes, and relationships between entities, and entities in ERD represent things or real objects (Adi & Kristin, 2014). Entity Relationship Diagram provides a clear picture of the fields contained in the tables contained in the database as well as their relationships. By looking at the fields and their relationships, an auditor is able to create an effective audit program. The ERD of this department store purchasing system can be seen in Figure 4.

Figure 3. Purchasing DFD

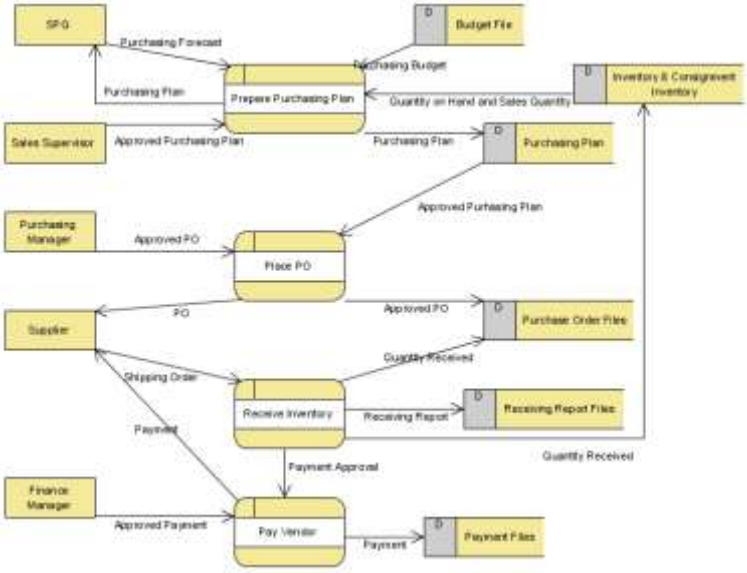
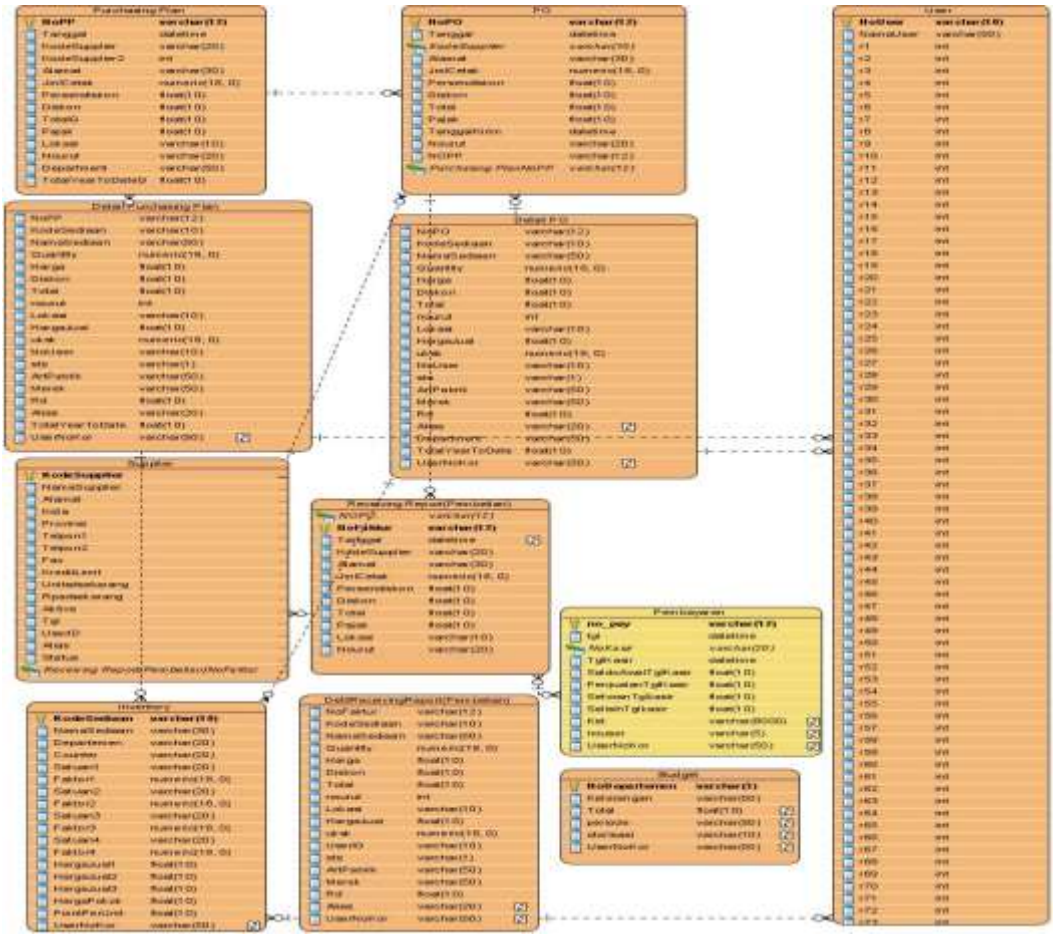


Figure 4. Purchasing ERD



Audit Program

DFD, ERD and audit assertions will give a strong background to make an effective Audit Program. Each process in the DFD reflects the existence of an activity that can be identified as having risks and of course required controls and audit objectives to control them. The following is an Audit Program of purchasing activities. The audit is carried out using the same Audit Program as the Audit Program used in 2011 (Antonio, 2014) as follows:

Audit Program – *Prepare Purchasing Plan*

Table 1. Audit Program – *Prepare Purchasing Plan*

Process	*Prepare Purchasing Plan*			
Risk	*Purchasing Plan* dibuat oleh orang yang tidak mempunyai otorisasi, melebihi budget dan atau dibuat terlambat dari tanggal yang ditentukan			
No	**Auditing Objects**	**Auditing Objectives**	**Key Control**	**Auditing Rules**
1	*Purchasing Orders must be made by a user who has authorization*	Occurrence	1. Check that each transaction is carried out by a user contained in the Table user 2. Check whether there are past transactions that are inputted by a user that is not in the Table user	1. <Nouser> in <UserName> exist in <User> 2. <Nouser> in <DetailPO> exist in <User>
2	*Purchasing Order does not exceed the budget*	Allocation	1. Check whether the total rupiah *Purchasing Plan* has exceeded the specified budget 1. Check if there is a total rupiah *Purchasing Plan* has exceeded the specified budget and if there is any authorization	1. <Total> in <*Purchasing* Order> add with <TotalYearToDate> in <Detail *Purchasing* Order> is greater than <Total> in <Budget> 2. If <Total> in <*Purchasing* Order > add with <TotalYearToDate> in <Detail *Purchasing* Order> is greater than <Total> in <Budget> check <authorization>
3	*Purchasing Plan is made incompatible with the Purchasing Plan that has been authorized*	Occurrence	1. Check whether there are purchasing orders that are not following the authorized Purchasing Plan	1. <KodeSediaan>, <Quantity>, <Harga> in <*Purchasing* Order> is equal with <KodeSediaan>, < Quantity >, <Harga> in <*Purchasing Plan*>
4	All Purchasing Orders have been recorded and there are no duplicate numbers	Completeness	1. Check that all Order purchasing is in the FilePurchasingg Order File 2. *Check if there is Purchasing Order duplication*	1. <NoPO> is sequence of <*Purchasing* Order> 2. Check Duplicate <NoPO> in <*Purchasing* Order>

Audit Program – *Place Purchasing Order*

Table 2. Audit Program – *Place Purchasing Order*

	Place Purchasing Order			
Risk	*Purchasing Orders are made by users who do not have authorization, exceed the budget, and or are not by the Purchasing Plan*			
No	**Auditing Objects**	**Auditing Objectives**	**Key Control**	**Auditing Rules**
1	*Purchasing Orders must be made by a user who has authorization*	Occurrence	1. Check that each transaction is carried out by a user contained in the Table user 2. Check whether there are past transactions that are inputted by a user that is not in the Table user	1. <Nouser> in <UserName> exist in <User> 2. <Nouser> in <DetailPO> exist in <User>
2	*Purchasing Order does not exceed the budget*	Allocation	1. Check whether the total rupiah *Purchasing Plan* has exceeded the specified budget 1. Check if there is a total rupiah *Purchasing Plan* has exceeded the specified budget and if there is any authorization	1. <Total> in <*Purchasing* Order> add with <TotalYearToDate> in <Detail *Purchasing* Order> is greater than <Total> in <Budget> 2. If <Total> in <*Purchasing* Order > add with <TotalYearToDate> in <Detail *Purchasing* Order> is greater than <Total> in <Budget> check <authorization>
3	*Purchasing Plan is made incompatible with the Purchasing Plan that has been authorized*	Occurrence	1. Check whether there are purchasing orders that are not following the authorized Purchasing Plan	1. <KodeSediaan>, <Quantity>, <Harga> in <*Purchasing* Order> is equal with <KodeSediaan>, < Quantity >, <Harga> in <*Purchasing Plan*>
4	All Purchasing Orders have been recorded and there are no duplicate	Completeness	1. Check that all Order purchasing is in the FilePurchasingg	1. <NoPO> is sequence of <*Purchasing* Order>

Audit Program – *Receive Inventory/Purchasing*

Table 3. Audit Program – *Receive Inventory/Purchasing*

Process	*Receive Inventory/Purchasing*			
Risk	Purchases are made by users who do not have authorization, exceed the budget and or are not in accordance with the Purchasing Plan			
No	**Auditing Objects**	**Auditing Objectives**	**Key Control**	**Auditing Rules**
1	*Receiving Report must be made by a user who has authorization*	Occurrence	1. Check that each transaction is carried out by a user contained in the Table user 2. Check whether there are past transactions that are inputted by a user that is not in the Table user	1. <Nouser> in <UserName> exist in <User> 2. <Nouser> in < Receiving Report > exist in <User>
2	*Receiving Reports are made incompatible with the Purchasing Plan that has been authorized*	Occurrence	1. Check whether there are receiving reports that are not following the authorized Purchasing Orders	1. < KodeSediaan>, <Quantity>, <Price> in <*Purchasing* Order> is equal with <KodeSediaan>, <Quantity>, <Price> in < *Purchasing* Order >
3	Inventory are received late from the specified date	Occurrence	1. Check if there is Receiving Report which is incompatible with the authorized order purchasing	1. *Receiving Report Purchase Order*
4	There are zero valued inventory	Valuation	1. Check whether there are inventory that have zero values	1. <PricePrincipal> in < Inventory> is null or 0
5	All Receiving Reports have been recorded and there are no twin numbers	Completeness	1. Check all *Receiving Report* already in the File *Receiving Report* File 2. Check if there is *Receiving Report number* duplication	1. <NoFaktur> is sequence of <*Receiving Report*> 2. Check Duplicate <NoFaktur> in <*Receiving Report*>

Audit Program – *Pay Supplier*

Table 4. Audit Program – *Pay Supplier*

Process	*Pay Supplier*			
Risk	Payments to Supplier are greater than they should or on inventory that have not been or have not been received			
No	**Auditing Objects**	**Auditing Objectives**	**Key Control**	**Auditing Rules**
1	Supplier Payment must be made by a user who has authorization	Occurrence	1. Check that each transaction is carried out by a user contained in the Table user 2. Check whether there are past transactions that are inputted by a user that is not in the Table user	1. <Nouser> in <UserName> exist in <User> 2. <Nouser> in < Debt> exist in <User>
2	Payment to Supplier must not be greater than it should be paid	Accuracy	1. Check whether there is a payment greater than the total number of POs that have been adjusted to the quantity of inventory received in the Receiving Report	1. <Total> in <Payable> is not greater than <Price> in <PO> x <Quantity> in <Sales Detail>
3	Payments to Supplier-Consignment must not be greater than they should be paid	Accuracy, Right and Obligation, Classification, Cut off	1. Check whether there is a payment greater than the total number of POs that have been adjusted to the quantity of the preparation sold	1. <Total> in <Payable> is not greater than <Price> in <PO> x <Quantity> in <Sales Detail>
4	All Supplier Payments have been recorded and there are no twin numbers	Completeness	1. Check that all Supplier Payments are in the File Payables File 2. Check if there are document number duplication	1. <NoPay> is sequence of <Payable> 2. Check Duplicate < NoPay> in <Payables>

Audit - Purchasing 2012

The audit is performed using the same 2011Audit Program but has been improved in accordance with the Findings produced by continuous auditing which has been implemented in 2011. These improvements include:

1. Software improvements for user access, only authorized users can access.
2. Synchronize table users so that only users in this user table can input transactions.
3. Add a message if there are transactions that exceed the budget and authorization to allow transactions that exceed the budget by authorized users.
4. Selection of suppliers based on performance that has been recorded in the system during 2011
5. Added a policy of making a purchase plan every Monday and checking that every user has collected it.
6. Added a primary key to the Purchasing Plan Table for document numbers so that the Purchasing Plan numbers cannot have twins.
7. Added checking that the purchase payment cannot exceed the purchase invoice.

findings – Purchasing 2012

The implementation of continuous auditing on purchase data in 2012 was performed by using triggers in the database in order to detect transactions that violate audit rules in real time. Purchase data in 2012 that were audited were 24,7923 documents with detailed transactions of 2,134,262 records and in 2013 as many as 26,237 documents with detailed transactions of 2,611,344. The identified Findings can be seen in the tables below:

Table 5. Findings – *Prepare Purchasing Plan* – 2012

Process	*Prepare Purchasing Plan*				
Risk	*Purchasing Plan* dibuat oleh orang yang tidak mempunyai otorisasi, melebihi budget dan atau dibuat melewati dari tanggal yang ditentukan.				
No	Auditing Objects	Key Control	Auditing Rules	findings (records)	
				CA	MA
1	Purchasing Plan must be made by a user who has authorization	1. Check that each transaction is carried out by a user contained in the Table user 2. Check whether there are past transactions that are inputted by a user that is not in the Table user	1. <Nouser> in <UserName> exist in <User> 2. <Nouser> in <PurchasingPlan> exist in <User>	0 0	0 0
2	Purchasing Plan does not exceed the budget	1. Check whether the total rupiah Purchasing Plan has exceeded the specified budget 2. Check if there is a total rupiah Purchasing Plan has exceeded the specified budget and if there is any authorization	1. <Total> in <Detail *Purchasing Plan*> add with <TotalYearToDate> in <*Purchasing Plan*> is greater than <Total> in <Budget> 2. If <Total> in <Detail *Purchasing Plan*> add with <TotalYearToDate> in <Detail *Purchasing Plan*> is greater than <Total> in <Budget> check <otorisasi>	109 3	3 3
3	Purchasing Plan are received late from the specified date	1. Check if Purchasing Plan made lately 2. Check whether every department has made Purchasing Plan every Monday	1. <Tanggal> in <*Purchasing Plan*> is not <Monday> 2. Check < Tanggal > in <*Purchasing Plan*> each <Department> is not null	432 3	12 3
4	All Purchasing Plan have been recorded and there are no duplicate numbers	1. Check that all Order purchasing is in the File Purchasing Order File 2. Check if there is Purchasing Order duplication	1. <NoPP> is sequence of <*Purchasing Plan*> 2. Check Duplicate <NoPP> in <*Purchasing Plan*>	0 0	0 0
			Total	001	15

Table 6. Findings – *Place Purchasing Order* – 2012

Process	*Place Purchasing Order*				
Risk	*Purchasing* Order dibuat oleh user yang tidak mempunyai otorisasi, melebihi budget dan atau tidak sesuai dengan *Purchasing Plan*				
No	Auditing Objects	Key Control	Auditing Rules	findings (records)	
				CA	MA
1	*Purchasing Orders must be made by a user who has authorization*	1. Check that each transaction is carried out by a user contained in the Table user 2. Check whether there are past transactions that are inputted by a user that is not in the Table user	1. <Nouser> in <UserName> exist in <User> 2. <Nouser> in <DetailPO> exist in <User>	0 0	0 0
2	*Purchasing Order does not exceed the budget*	1. Check whether the total rupiah *Purchasing Plan* has exceeded the specified budget 2. Check if there is a total rupiah *Purchasing Plan* has exceeded the specified budget and if there is any authorization	1. <Total> in <*Purchasing Order*> add with <TotalYearToDate> in <Detail *Purchasing Order*> is greater than <Total> in <Budget> 2. If <Total> in <*Purchasing Order*> add with <TotalYearToDate> in <Detail *Purchasing Order*> is greater than <Total> in <Budget> check <authorization>	12 3	0 0
3	*Purchasing Plan is made incompatible with the Purchasing Plan that has been authorized*	1. Check whether there are purchasing orders that are not following the authorized Purchasing Plan	1. <KodeSediaan>, <Quantity>, <Harga> in <*Purchasing Order*> is equal with <KodeSediaan>, < Quantity >, <Harga> in <*Purchasing Plan*>	74	11
4	All Purchasing Orders have been recorded and there are no duplicate numbers	1. Check that all Order purchasing is in the File Purchasing Order File 2. *Check if there is Purchasing Order duplication*	1. <NoPO> is sequence of <*Purchasing Order*> 1. Check Duplicate <NoPO> in <*Purchasing Order*>	0 0	0 0
			Total	89	11

Table 7. Findings – Receive Inventory – 2012

Risk	*Purchasing* Order dibuat oleh user yang tidak mempunyai otorisasi, melebihi b… sesuai dengan *Purchasing Plan*				
No	**Auditing Objects**	**Key Control**	**Auditing Rules**	**findings (records)**	
				CA	**MA**
1	*Receiving Report must be made by a user who has authorization*	1. Check that each transaction is carried out by a user contained in the Table user 2. Check whether there are past transactions that are inputted by a user that is not in the Table user	1. <Nouser> in <UserName> exist in <User> 2. <Nouser> in <*Receiving Report*> exist in <User>	0 0	0 0
2	*Receiving Reports are made incompatible with the Purchasing Plan that has been authorized*	1. Check whether there are receiving reports that are not following the authorized Purchasing Orders	1. < KodeSediaan>, <Quantity>, <Price> in <*Purchasing* Order> is equal with <KodeSediaan>, <Quantity>, <Price> in < *Purchasing* Order >	5	3
3	Inventory are received late from the specified date	1. Check if there is Receiving Report which is incompatible with the authorized order purchasing	1. < Tanggal > in <*Receiving Report*> is not greater than <TanggalKirim> in <*Purchase Order*>		
4	There are zero valued inventory	1. Check whether there are inventory that have zero values	1. <HargaPokok> in <Sediaan> is null or 0		
5	All Receiving Reports have been recorded and there are no twin numbers	1. Check all *Receiving Report* already in the File *Receiving Report* File 2. Check if there is *Receiving Report number* duplication	1. <NoFaktur> is sequence of <*Receiving Report*> 2. Check Duplicate <NoFaktur> in <*Receiving Report*>	0 0	0 0
				Total	**437**	**3**

Table 8. Findings – *Pay Supplier* -2012

Process	*Pay Supplier*				
Risk	Pembayaran ke Supplier lebih besar dari yang seharusnya atau atas sediaan yang belum atau tidak diterima				
No	**Auditing Objects**	**Key Control**	**Auditing Rules**	**findings (records)**	
				CA	**MA**
1	Supplier Payment must be made by a user who has authorization	1. Check that each transaction is carried out by a user contained in the Table user 2. Check whether there are past transactions that are inputted by a user that is not in the Table user	1. <Nouser> in <UserName> exist in <User> 2. <Nouser> in <Hutang> exist in <User>	0 0	0 0
2	Payment to Supplier must not be greater than it should be paid	1. Check whether there is a payment greater than the total number of POs that have been adjusted to the quantity of inventory received in the Receiving Report	1. <Total> in <Hutang> is not greater than <Price> in <PO> x <Quantity> in <*Receiving Report*>	0	0
3	Payments to Supplier-Consignment must not be greater than they should be paid	1. 1. Check whether there is a payment greater than the total number of POs that have been adjusted to the quantity of the preparation sold	1. <Total> in <Hutang> is not greater than <Price> in <PO> x <Quantity> in <Sales Detail>	0	0
4	All Supplier Payments have been recorded and there are no twin numbers	1. Check that all Supplier Payments are in the File Payables File 1. Check if there are document number duplication	1. <NoPay> is sequence of <Hutang> 2. Check Duplicate <NoPay> in <Hutang>	0 0	0 0
				Total	**0**	**0**

Table 9. Findings – Apply Payments – 2012

Process	Apply Payments				
Risk	Pembayaran pelanggan yang diterima tidak sesuai dengan yang seharusnya				
No	Auditing Objects	Key Control	Auditing Rules	findings (records)	
				CA	MA
1	Payments must be followed the invoice	1. Check whether there are payments that do not match the invoice	1. <Total> in <Bayar> is not Equal with <Total> in <PenjualanDeptStore>	0	0
			Total	**0**	**0**

Audit Purchasing 2013

The audit was conducted using the same Audit Program as the Audit Program used in 2011 which has been improved in accordance with the Findings resulted by continuous auditing in the 2012 audit. These improvements include:

1. Selection of suppliers based on performance that has been recorded in the system during 2012
2. Adding a policy that only ordered goods may be received and the implementation that receiving reports can only receive goods contained in the purchase order.
3. Adding date checks according to the order of transaction events.

By carrying out continuous auditing in 2013 after the above improvements were made, the following Findings were identified:

Table 10. Findings – *Prepare Purchasing Plan* – 2013

Process	*Prepare Purchasing Plan*				
Risk	*Purchasing Plan* dibuat oleh orang yang tidak mempunyai otorisasi, melebihi budget dan atau dibuat terlambat dari tanggal yang ditentukan				
No	Auditing Objects	Key Control	Auditing Rules	findings (records)	
				CA	MA
1	Purchasing Plan must be made by a user who has authorization	1. Check that each transaction is carried out by a user contained in the Table user 2. Check whether there are past transactions that are inputted by a user that is not in the Table user	1. <Nouser> in <UserName> exist in <User> 2. <Nouser> in <*PurchasingPlan*> exist in <User>	0 0	0 0
2	Purchasing Plan does not exceed the budget	1. Check whether the total rupiah Purchasing Plan has exceeded the specified budget 2. Check if there is a total rupiah Purchasing Plan has exceeded the specified budget and if there is any authorization	1. <Total> in <Detail *Purchasing Plan*> add with <TotalYearToDate> in <*Purchasing Plan*> is greater than <Total> in <Budget> 2. If <Total> in <Detail *Purchasing Plan*> add with <TotalYearToDate> in <Deatil *Purchasing Plan*> is greater than <Total> in <Budget> check <otorisasi>	77 0	1 0
3	Purchasing Plan are received late from the specified date	1. Check if Purchasing Plan made lately 2. Check whether every department has made Purchasing Plan every Monday	1. <Tanggal> in <*Purchasing Plan*> is not <Monday> 2. Check < Tanggal > in <*Purchasing Plan*> each <Department> is not null	512 0	0 0
4	All Purchasing Plan have been recorded and there are no duplicate numbers	1. Check that all Order purchasing is in the File Purchasing Order File 2. Check if there is Purchasing Order duplication	1. <NoPP> is sequence of <*Purchasing Plan*> 2. Check Duplicate <NoPP> in <*Purchasing Plan*>	0 0	0 0
			Total	**589**	**1**

Table 11. Findings – *Place Purchasing Order* – 2013

Process	*Place Purchasing Order*				
Risk	*Purchasing* Order dibuat oleh user yang tidak mempunyai otorisasi, melebihi budget dan atau tidak sesuai dengan *Purchasing Plan*				
No	**Auditing Objects**	**Key Control**	**Auditing Rules**	**findings (records)**	
				CA	**MA**
1	*Purchasing Orders must be made by a user who has authorization*	1. Check that each transaction is carried out by a user contained in the Table user	1. <Nouser> in <UserName> exist in <User>	0	0
		2. Check whether there are past transactions that are inputted by a user that is not in the Table user	2. <Nouser> in <DetailPO> exist in <User>	0	0
2	*Purchasing Order does not exceed the budget*	1. Check whether the total rupiah *Purchasing Plan* has exceeded the specified budget	1. <Total> in <*Purchasing* Order> add with <TotalYearToDate> in <Detail *Purchasing* Order> is greater than <Total> in <Budget>	9	0
		2. Check if there is a total rupiah *Purchasing Plan* has exceeded the specified budget and if there is any authorization	2. If <Total> in <*Purchasing* Order > add with <TotalYearToDate> in <Detail *Purchasing* Order> is greater than <Total> in <Budget> check <authorization>	0	0
3	*Purchasing Plan is made incompatible with the Purchasing Plan that has been authorized*	1. Check whether there are purchasing orders that are not following the authorized Purchasing Plan	1. <KodeSediaan>, <Quantity>, <Harga> in <*Purchasing* Order> is equal with <KodeSediaan>, < Quantity >, <Harga> in <*Purchasing Plan*>	31	1
4	All Purchasing Orders have been recorded and there are no duplicate numbers	1. Check that all Order purchasing is in the File Purchasing Order File	1. <NoPO> is sequence of <*Purchasing* Order>	0	0
		2. *Check if there is Purchasing Order duplication*	1. Check Duplicate <NoPO> in <*Purchasing* Order>	0	0
			Total	**40**	**1**

Table 12. Findings – Receive Inventory – 2013

Process	Receive Inventory				
Risk	*Purchasing* Order dibuat oleh user yang tidak mempunyai otorisasi, melebihi budget dan atau tidak sesuai dengan *Purchasing Plan*				
No	**Auditing Objects**	**Key Control**	**Auditing Rules**	**findings (records)**	
				CA	**MA**
1	*Receiving Report must be made by a user who has authorization*	1. Check that each transaction is carried out by a user contained in the Table user	1. <Nouser> in <UserName> exist in <User>	0	0
		2. Check whether there are past transactions that are inputted by a user that is not in the Table user	2. <Nouser> in <*Receiving Report*> exist in <User>	0	0
2	*Receiving Reports are made incompatible with the Purchasing Plan that has been authorized*	1. Check whether there are receiving reports that are not following the authorized Purchasing Orders	1. < KodeSediaan>, <Quantity>, <Price> in <*Purchasing* Order> is equal with <KodeSediaan>, <Quantity>, <Price> in < *Purchasing* Order >	3	0
3	Inventory are received late from the specified date	1. Check if there is Receiving Report which is incompatible with the authorized order purchasing	1. < Tanggal > in <*Receiving Report*> is not greater than <TanggalKirim> in <*Purchase Order*>	231	0
4	There are zero valued inventory	1. Check whether there are inventory that have zero values	1. <HargaPokok> in <Sediaan> is null or 0	0	0
5	All Receiving Reports have been recorded and there are no twin numbers	1. Check all *Receiving Report* already in the File *Receiving Report* File	1. <NoFaktur> is sequence of <*Receiving Report*>	0	0
		2. Check if there is *Receiving Report number* duplication	2. Check Duplicate <NoFaktur> in <*Receiving Report*>		
			Total	**234**	**0**

Table 13. Findings – Apply Payments – 2013

Process	*Pay Supplier*				
Risk	Pembayaran ke Supplier lebih besar dari yang seharusnya atau atas sediaan yang belum atau tidak diterima				
No	Auditing Objects	Key Control	Auditing Rules	findings (records)	
				CA	MA
1	Supplier Payment must be made by a user who has authorization	1. Check that each transaction is carried out by a user contained in the Table user 2. Check whether there are past transactions that are inputted by a user that is not in the Table user	1. <Nouser> in <UserName> exist in <User> 2. <Nouser> in <Hutang> exist in <User>	0 0	0 0
2	Payment to Supplier must not be greater than it should be paid	1. Check whether there is a payment greater than the total number of POs that have been adjusted to the quantity of inventory received in the Receiving Report	1. <Total> in <Hutang> is not greater than <Price> in <PO> x <Quantity> in *<Receiving Report>*	0	0
3	Payments to Supplier-Consignment must not be greater than they should be paid	1. 1. Check whether there is a payment greater than the total number of POs that have been adjusted to the quantity of the preparation sold	1. <Total> in <Hutang> is not greater than <Price> in <PO> x <Quantity> in <Sales Detail>	0	0
4	All Supplier Payments have been recorded and there are no twin numbers	1. Check that all Supplier Payments are in the File Payables File 1. Check if there are document number duplication	1. <NoPay> is sequence of <Hutang> 2. Check Duplicate ≤ NoPay> in <Hutang>	0 0	0 0
			Total	0	0

Table 14. Findings – Apply Payments – 2013

Process	Apply Payments				
Risk	Pembayaran pelanggan yang diterima tidak sesuai dengan yang seharusnya				
No	Auditing Objects	Key Control	Auditing Rules	findings (records)	
				CA	MA
1	Payments must be followed the invoice	1. Check whether there are payments that do not match the invoice	1. <Total> in <Bayar> is not Equal with <Total> in <PenjualanDeptStore>	0	0
			Total	0	0

The Effectiveness of Audit - Purchase

The effectiveness of Continuous Audit will be proven if the Findings in 2012 and 2013 with the same method will result in significantly decreased audit Findings.

The Effectiveness of Audit – *Continuous Audit* - Pembelian

From the indings, it can be concluded that there is a very significant decrease in continuous auditing Findings both in continuous auditing and in manual auditing compared to Findings in 2011 before the improvement as shown in Table 15 and Table 16. Findings of continuous auditing and its effectiveness can be seen in the tables below:

Findings of *Continuous Audit - Prepare Purchasing Plan*

After improving the continuous auditing based on the Findings of continuous audit in 2011, the continuous audit was conducted in 2022, it identified a significant decrease in Findings. Six key controls have decreased Findings to 100%, in other words, Findings are not found in audits or problems that occur can be handled properly.

Key control check whether there is a total rupiah of Purchasing Plan that has exceeded the predetermined budget has decreased significantly but has not been able to solve the problem because the purchase still involves purchases in cash from several suppliers and there are excess goods sent by the supplier and received.

Key control check whether there is a Purchasing Plan that is made late cannot be eliminated because there is a sudden request that is followed up when there is a manually purchase from out of town.

Table 15. Summary of *Continuous* Audit Findings - *Prepare Purchasing Plan*

Process	Prepare Purchasing Plan							
Risk	Purchasing Plans are made by people who do not have authorization, exceed the budget and or are made late from the specified date							
No	Auditing Objects	Key Control	Temuan CA					
			2011	2012	2013	2011	2012	2013
1	Purchasing Plan must be made by a user who has authorization	1. Check that each transaction is carried out by a user contained in the Table user	3	0	0	100%	0.00%	0.00%
		2. Check whether there are past transactions that are inputted by a user that is not in the Table user	121	0	0	100%	0.00%	0.00%
2	Purchasing Plan does not exceed the budget	1. Check whether the total rupiah Purchasing Plan has exceeded the specified budget	342	169	77	100%	49.42%	22.51%
		2. Check if there is a total rupiah Purchasing Plan has exceeded the specified budget and if there is any authorization	0	0	0	100%	100.00%	100.00%
3	Purchasing Plan are received late from the specified date	1. Check if Purchasing Plan made lately	1321	432	512	100%	32.70%	38.76%
		2. Check whether every department has made Purchasing Plan every Monday	31	0	0	100%	0.00%	0.00%
4	All Purchasing Plan have been recorded and there are no duplicate numbers	1. Check that all Order purchasing is in the File Purchasing Order File	63	0	0	100%	0.00%	0.00%
		2. Check if there is Purchasing Order duplication	27	0	0	100%	0.00%	0.00%
		Total	1908	601	589	100%	69%	38%

Findings of *Continuous Audit - Place Purchasing Plan*

After improving the continuous auditing based on the Findings of continuous audit in 2011, the continuous audit was conducted in 2022, it identified a significant decrease in Findings. Four key controls have decreased their Findings to 100%, in other words, no audit Findings were found or problems that occur can be handled properly.

Key control check whether there is a total rupiah Purchasing Plan that has exceeded the predetermined budget and if there is an authorization it actually increased in 2012 and was successfully addressed in 2013. This increase was due to the existence of cash purchases which were quite difficult to control. Key control check whether the total rupiah Purchasing Plan has exceeded the predetermined budget has experienced a significant decrease. This key control cannot be removed because there are still suppliers who send more goods than ordered and received by the organization.

Table 16. Summary of *Continuous* Audit Findings - *Place Purchasing Order*

Process	Place Purchasing Order							
Risk	Purchasing Orders are made by users who do not have authorization, exceed the budget and or are not in accordance with the Purchasing Plan							
No	Auditing Objects	Key Control	Temuan			CA		
			2011	2012	2013	2011	2012	2013
1	Purchasing Order must be made by a user who has authorization	1.Check that each transaction is carried out by a user contained in the Table user	1	0	0	100%	0.00%	0.00%
		2. Check whether there are past transactions that are inputted by a user that is not in the Table user	2	0	0	100%	0.00%	0.00%
2	Purchasing Plan does not exceed the budget	1. Check whether the total rupiah Purchasing Plan has exceeded the specified budget	211	12	9	100%	5.69%	4.27%
		2. Check if there is a total rupiah Purchasing Plan has exceeded the specified budget and if there is any authorization	2	3	0	100%	150.00%	0.00%
3	Purchasing Plan are received late from the specified date	1. Check whether there are purchasing orders that do not match the authorized purchasing plan	921	74	31	100%	8.03%	3.37%
4	All Purchasing Plan have been recorded and there are no duplicate numbers	1. Check that all purchasing orders is in the File Purchasing Order File	256	0	0	100%	0.00%	0.00%
		2. Check if there is Purchasing Order duplication	13	0	0	100%	0.00%	0.00%
		Total	1406	89	40	100%	94%	91%

Findings of *Continuous Audit - Prepare Receiving Inventory*

After improving the continuous auditing based on the Findings of continuous audit in 2011, the continuous audit was conducted in 2022, it identified a significant decrease in Findings. Five key controls have decreased their Findings to 100%, in other words, no audit Findings were found or problems that occur can be handled properly. Key control checks whether there is a Receiving Report made more than the date specified in the Purchase Order has decreased significantly but has not been lost due to excess goods sent by the supplier and must still be received.

Table 17. Summary of Continuous Audit Findings – *Receiving Inventory*

Process	Receive Inventory							
Risk	Receiving inventory are made by users who do not have authorization, exceed the budget and or are not in accordance with the Purchasing Orders							
No	Auditing Objects	Key Control	Temuan			CA		
			2011	2012	2013	2011	2012	2013
1	Purchasing Order must be made by a user who has authorization	1. Check that each transaction is carried out by a user contained in the Table user	1	0	0	100%	0.00%	0.00%
		2. Check whether there are receiving reports that are not following the authorized Purchasing Orders	4	0	0	100%	0.00%	0.00%
2	Receiving Reports are made incompatible with the Purchasing Plan that has been authorized	1. Check whether there are receiving reports that are not following the authorized Purchasing Orders	26	5	3	100%	19.23%	11.54%
3	Inventories are received late from the specified date	1. Check if there is Receiving Report which is incompatible with the authorized order purchasing	736	432	231	100%	58.70%	31.39%
4	There are zero valued inventory	1. Check whether there are inventory that have zero values	121	0	0	100%	0.00%	0.00%
5	All Receiving Reports have been recorded and there are no twin numbers	1. Check all Receiving Report already in the File Receiving Report File	311	0	0	100%	0.00%	0.00%
		2. Check if there is Receiving Report number duplication	42	0	0	100%	0.00%	0.00%
		Total	1241	437	234	100%	65%	46%

Findings of Continuous Audit - *Pay Vendor*

After improving the continuous auditing based on the Findings of continuous audit in 2011, the continuous audit was conducted in 2022, it identified a significant decrease in Findings. Four key controls have decreased their Findings to 100%, in other words, no audit Findings were found or problems that occur can be handled properly.

Table 18. Summary of Continuous Audit Findings – *Pay Vendor*

Process	Pay Vendor								
Risk	Payments to Vendors over the amount should be or payment made to inventory has not been received yet								
No	Auditing Objects	Key Control	Temuan			CA			
			2011	2012	2013	2011	2012	2013	
1	Supplier Payment must be made by a user who has authorization	1. Check that each transaction is carried out by a user contained in the Table user	0	0	0	100%	100.00%	100.00%	
		2. Check whether there are past transactions that are inputted by a user that is not in the Table user	0	0	0	100%	100.00%	100.00%	
2	Payment to Supplier must not be greater than it should be paid	1. Check whether there is a payment greater than the total number of POs that have been adjusted to the quantity of inventory received in the Receiving Report	14	0	0	100%	0.00%	0.00%	
3	Payments to Supplier-Consignment must not be greater than they should be paid	1. Check whether there is a payment greater than the total number of POs that have been adjusted to the quantity of the preparation sold	73	0	0	100%	0.00%	0.00%	
4	Payments to Supplier-Consignment must not be greater than they should be paid	1. Check that all Supplier Payments are in the File Payables File	5	0	0	100%	0.00%	0.00%	
		2. Check if there are document number duplication	3	0	0	100%	0.00%	0.00%	
		Total	95	0	0	100%	100%	100%	

Findings of Continuous Audit - *Prepare Purchasing Plan*

Payment control can still be maintained properly so that in 2012 and 2013 there were no audit Findings.

Table 19. Summary of Continuous Audit Findings – *Apply Payments*

Process	Apply Payments								
Risk	Customer payments received are not as it should be								
No	Auditing Objects	Key Control	Temuan			CA			
			2011	2012	2013	2011	2012	2013	
1	Payments must be in accordance with the invoice	1. Check whether there are payments that do not match the invoice	0	0	0	100%	100.00%	100.00%	
		Total	0	0	0	100%	100%	100%	

***The Effectiveness of Audit – Manual Audit* - Pembelian**

The effectiveness of Manual Audit will be proven if the Findings in 2012 and 2013 with the same method will result in significantly decreased audit Findings.

Findings of Manual Audit - *Prepare Purchasing Plan*

After improving the manual auditing based on the Findings of continuous audit in 2011, the continuous audit was conducted in 2022, it identified a significant decrease in Findings. Two key controls have decreased their Findings to 100%, in other words, no audit Findings were found or problems that occur can be handled properly.

Key control check whether there is a total rupiah of Purchasing Plan that has exceeded the predetermined budget has decreased significantly but has not been able to solve the problem because the purchase still involves purchases in cash.

Key control check whether there is a Purchasing Plan that is made late cannot be eliminated because there is a sudden request that is followed up when there is a manually purchase from out of town.

Table 20. Summary of Manual Audit Findings - *Prepare Purchasing Plan*

Process	Prepare Purchasing Plan								
Risk	Purchasing Plan dibuat oleh orang yang tidak mempunyai otorisasi, melebihi budget dan atau dibuat terlambat dari tanggal yang ditentukan								
No	Auditing Objects	Key Control	Temuan MA						
			2011	2012	2013	2011	2012	2013
1	Purchasing Plan must be made by a user who has authorization	1. Check that each transaction is carried out by a user contained in the Table user	0	0	0	100%	100.00%	100.00%
		2. Check whether there are past transactions that are inputted by a user that is not in the Table user	0	0	0	100%	100.00%	100.00%
2	Purchasing Plan does not exceed the budget	1. Check whether the total rupiah Purchasing Plan has exceeded the specified budget	56	3	1	100%	5.36%	1.79%
		2. Check if there is a total rupiah Purchasing Plan has exceeded the specified budget and if there is any authorization	0	0	0	100%	100.00%	100.00%
3	Purchasing Plan are received late from the specified date	1. Check if Purchasing Plan made lately	57	12	0	100%	21.05%	0.00%
		2. Check whether every department has made Purchasing Plan every Monday	0	0	0	100%	100.00%	100.00%
4	All Purchasing Plan have been recorded and there are no duplicate numbers	1. Check that all Order purchasing is in the File Purchasing Order File	11	0	0	100%	0.00%	0.00%
		2. Check if there is Purchasing Order duplication	9	0	0	100%	0.00%	0.00%
		Total	133	15	1	100%	89%	88%

Findings of Manual Audit - *Place Purchasing Plan*

After improving the manual auditing based on the Findings of continuous audit in 2011, the continuous audit was conducted in 2022, it identified a significant decrease in Findings. Three key controls have decreased their Findings to 100%, in other words, no audit Findings were found or problems that occur can be handled properly. Four key control still can be controlled without Findings. Key control "Checks whether there are purchasing orders that are not in accordance with the authorized Purchasing Plan", which has decreased significantly but has not been lost due to purchases in cash.

Table 21. Summary of Manual Audit Findings - *Place Purchasing Plan*

Process	Place Purchasing Order							
Risk	Purchasing Orders are made by users who do not have authorization, exceed the budget and or are not in accordance with the Purchasing Plan							
No	Auditing Objects	Key Control	Temuan MA					
			2011	2012	2013	2011	2012	2013
1	Purchasing Order must be made by a user who has authorization	1.Check that each transaction is carried out by a user contained in the Table user	0	0	0	100%	100.00%	100.00%
		2. Check whether there are past transactions that are inputted by a user that is not in the Table user	0	0	0	100%	100.00%	100.00%
2	Purchasing Plan does not exceed the budget	1. Check whether the total rupiah Purchasing Plan has exceeded the specified budget	64	0	0	100%	0.00%	0.00%
		2. Check if there is a total rupiah Purchasing Plan has exceeded the specified budget and if there is any authorization	2	0	0	100%	0.00%	0.00%
3	Purchasing Plan are received late from the specified date	1. Check whether there are purchasing orders that do not match the authorized purchasing plan	127	11	1	100%	8.66%	0.79%
4	All Purchasing Plan have been recorded and there are no duplicate numbers	1. Check that all purchasing orders is in the File Purchasing Order File	34	0	0	100%	0.00%	0.00%
		2. Check if there is Purchasing Order duplication	0	0	0	100%	100.00%	100.00%
		Total	227	11	1	100%	95%	95%

Findings of Manual Audit - *Receive Inventory*

After improving the manual auditing based on the Findings of continuous audit in 2011, the continuous audit was conducted in 2022, it identified a significant decrease in Findings. Three key controls have decreased their Findings to 100%, in other words, no audit Findings were found or problems that occur can be handled properly. Four key controls still can be controlled without Findings.

Table 22. Summary of Manual Audit Findings – *Receive Inventory*

Process	Receive Inventory							
Risk	Purchasing Order dibuat oleh user yang tidak mempunyai otorisasi, melebihi budget dan atau tidak sesuai dengan Purchasing Plan							
No	Auditing Objects	Key Control	Temuan MA					
			2011	2012	2013	2011	2012	2013
1	Purchasing Order must be made by a user who has authorization	1. Check that each transaction is carried out by a user contained in the Table user	0	0	0	100%	100.00%	100.00%
		2. Check whether there are receiving reports that are not following the authorized Purchasing Orders	0	0	0	100%	100.00%	100.00%
2	Receiving Reports are made incompatible with the Purchasing Plan that has been authorized	1. Check whether there are receiving reports that are not following the authorized Purchasing Orders	0	3	0	100%	100.00%	100.00%
3	Inventories are received late from the specified date	1. Check if there is Receiving Report which is incompatible with the authorized order purchasing	231	0	0	100%	0.00%	0.00%
4	There are zero valued inventory	1. Check whether there are inventory that have zero values	0	0	0	100%	100.00%	100.00%
5	All Receiving Reports have been recorded and there are no twin numbers	1. Check all Receiving Report already in the File Receiving Report File	132	0	0	100%	0.00%	0.00%
		2. Check if there is Receiving Report number duplication	31	0	0	100%	0.00%	0.00%
		Total	394	3	0	100%	99%	99%

Findings of Manual Audit – *Pay Vendor*

After improving the manual auditing based on the Findings of continuous audit in 2011, the continuous audit was conducted in 2022, it identified a significant decrease in Findings. Two key controls have decreased their Findings to 100%, in other words, no audit Findings were found or problems that occur can be handled properly.

Table 23. Summary of Manual Audit Findings – *Pay Vendor*

Process	Pay Vendor							
Risk	Pembayaran ke Vendor lebih besar dari yang seharusnya atau atas sediaan yang belum atau tidak diterima							
No	Auditing Objects	Key Control	Temuan MA					
			2011	2012	2013	2011	2012	2013
1	Supplier Payment must be made by a user who has authorization	1. Check that each transaction is carried out by a user contained in the Table user	0	0	0	100%	100.00%	100.00%
		2. Check whether there are past transactions that are inputted by a user that is not in the Table user	0	0	0	100%	100.00%	100.00%
2	Payment to Supplier must not be greater than it should be paid	1. Check whether there is a payment greater than the total number of POs that have been adjusted to the quantity of inventory received in the Receiving Report	0	0	2	100%	100.00%	100.00%
3	Payments to Supplier-Consignment must not be greater than they should be paid	1. Check whether there is a payment greater than the total number of POs that have been adjusted to the quantity of the preparation sold	0	0	0	100%	100.00%	100.00%
4	Payments to Supplier-Consignment must not be greater than they should be paid	1. Check that all Supplier Payments are in the File Payables File	5	0	0	100%	0.00%	0.00%
		2. Check if there are document number duplication	3	0	0	100%	0.00%	0.00%
		Total	8	0	0	100%	100%	100%

Findings of Manual Audit – *Pay Vendor*

Payment control can still be maintained properly so that in 2012 and 2013 there were no audit Findings.

Table 24. Summary of Manual Audit Findings – *Apply Payments*

Process	Apply Payments							
Risk	Customer payments received are not as it should be							
No	Auditing Objects	Key Control	Temuan MA					
			2011	2012	2013	2011	2012	2013
1	Payments must be in accordance with the invoice	1. Check whether there are payments that do not match the invoice	0	0	0	100%	100.00%	100.00%
		Total	0	0	0	100%	100%	100%

The Effectiveness of Continuous Auditing and Influential Framework Components

When the continuous audit Findings were identified in 2011, the management conducted an evaluation involving the internal auditors, all managers and supervisors. These Findings discuss the factors that led to the Findings and coordinate to improve. The main causes of the Findings-Findings continuous audit are as follows:

1. Weaknesses in the software used, especially in the following components:
    a. User table and user rights that are not synchronized so that unauthorized users can enter the system
    b. Document numbers can be twins so that documents and data cannot be relied on
    c. Checking the date of documents that are not in chronological order
    d. Software still allows transactions that exceed the budget or plan

2. Cash purchases that are very difficult to control because they are not monitored in the system.
3. Supervisors are not disciplined in making purchase plans and are often late in submitting them.
4. There is no system to monitor supplier performance and some suppliers can control or influence purchasing department policies.

From these Findings, the internal auditor makes new parameters to be applied to continuous auditing, the management makes new policies for suppliers, purchasing planning, receiving goods and setting a date for the collection of purchase plans. The IT department performs software repairs both on the user table, authorization, primary key on the document number and the authorization menu to authorize purchases that exceed the budget or plan. Organization and coordination are very visible with strong leadership from the owner and supervision is carried out closely for system improvements. All coordination and project management are written on the Microsoft project and the owner always carries out inherent supervision.

After improvements have been made, the implementation of new systems and policies is implemented both in SOPs and in continuous auditing. Testing is carried out by the internal auditor using a white box approach and matching the audit results with the scenarios that have been made. The tests were made taking into account the audit Findings in 2011 can no longer occur. From the results of interviews and observations, it can be seen that the owner's leadership is very strong to overcome all problems in the system. Internal auditors are highly motivated to resolve existing audit issues and communicate efficiently and effectively with the owner and monitor this project very closely.

After all the testing is complete, a continuous audit is carried out and from the Findings it can be concluded that the Findings-Findings are minimal, indicating that continuous auditing has been effective in overcoming frauds and errors.

Table 25. Summary of Continuous Audit Findings dan Manual Audit - Pembelian

Process	Purchasing								
Risk									
No	**Process**	**Temuan**							
		Continuous Audit				***Manual Audit***			
		2011	**2012**	**2013**	**Total**	**2011**	**2012**	**2013**	**Total**
1	Prepare Purchasing Plan	1908	601	589	3098	133	15	1	149
2	Place Purchasing Order	1406	89	40	1535	227	11	1	239
3	Receive Inventory	1241	437	234	1912	394	3	0	397
4	Pay Vendor	95	0	0	95	8	0	0	8
5	Apply Payments	0	0	0	0	0	0	0	0
Total		4650	1127	863	6640	762	29	2	793
		100.00%	24.24%	18.56%		100.00%	3.81%	0.26%	

From Table 24, it can be explained that there was a very significant decrease in continuous audit Findings, namely 75.76% or 3,523 Findings from Findings from 2011 to 2012 and a decrease of 81.44% or 3787 Findings from 2011 to 2013. Likewise, there was a significant decrease in Findings. Significant 96.19% or 733 Findings from 2011 to 2012 Findings and a decrease of 99.74% or 760 Findings from 2011 to 2013.

The biggest effectiveness barrier occurs in the key control "check whether there is a Receiving Report made more than the date specified on the Purchase Order" and "check whether there is a receiving report that is not in accordance with the authorized purchasing order", this happens because 96% of suppliers come from from out of town and there is no purchase policy that stipulates that the goods are received late even though a tolerable date of receipt has been determined on the purchase order. This is difficult to control, especially on purchases from several suppliers who have an influence on the purchasing department.

CONCLUSION

Findings of continuous audit in 2011 suggested improvements to software weaknesses: table users and user rights, duplicate document numbers, checking document dates that are not in chronological order, software still allows transactions that exceed budget or plan even without authorization, cash purchases which is difficult to control, indiscipline of employees in making purchasing plans and there is no system to monitor supplier performance and some suppliers are able to control or influence purchasing department policies.

In accordance with the initial theory, with improvements to Continuous Auditing and policies leading to audit effectiveness in improving internal control and quality with a very significant decrease in Findings-Findings both in 2012 and 2013 compared to audit Findings in 2011. Continuous audit Findings in in 2012 decreased by 75.76% or decreased by 3,523 from Findings in 2011 and decreased by 81.44% or by 3787 Findings from 2011 to 2013. Likewise, there was a decrease in Findings in the audit manual which was very significant, namely by 96.19% or by 733 from Findings. 2011 to 2012 and a decrease of 99.74% or 760 Findings from 2011 to 2013.

This significant decrease in the Findings was due to real-time inspection, sampling of population versus data samples and by continuous improvement of continuous auditing parameters. Another important factor that greatly influences the effectiveness of continuous auditing is the interaction between continuous auditing, owner and internal auditors and all related parties. Strong leadership from the owner, efficient and effective interaction from internal auditors, inherent and

tight supervision and strong motivation make continuous auditing a reliable tool or method that helps management achieve its goals.

The only key control that experienced an increase in the following year was "check whether there is a total rupiah purchasing plan that has exceeded the predetermined budget and if there is an authorization". This key control has increased by 1 finding or 150% from the 2011 Findings, namely 2 Findings. This is due to the manual process and the strong influence of the supplier on the purchasing department so that the transaction passes. Based on the evaluation of the Findings in 2012, the policy taken by the management is that if there is a purchasing plan that exceeds the budget it will be rejected by the system so that in 2013 these Findings have been resolved.

Further research can be done by applying Fuzzy Logic based on artificial intelligence in Continuous Auditing so that patterns of fraud and anomalies that have not been defined or identified by the auditor will be detected. Thus, it will provide more accurate protection and detection for auditors.

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