

Audit of Coffee Division Sales Information System at PT. Tunas Immanta Gasindo Cilegon Banten Using Cobit 5 Framework

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Key Word:

Audit Sistem Informasi, Penjualan, COBIT 5.

Abstrak

Audit sistem informasi merupakan suatu proses pengujian terhadap infrastruktur teknologi informasi untuk mengetahui apakah sistem tersebut digunakan dan berjalan dapat menjamin keamanan aset yang dimiliki. Audit sistem informasi penjualan dapat menentukan keberhasilan suatu perusahaan. Tujuannya untuk mengetahui audit sistem informasi penjualan divisi kopi pada PT. Immanta Buds Gasindo Cilegon-Banten menggunakan Framework Cobit 5. Metode penelitian ini menggunakan metode kuantitatif dengan metode wawancara gabungan berdasarkan pertanyaan COBIT, observasi dilakukan untuk memperkuat hasil penelitian. Penelitian ini menghasilkan proses audit sistem informasi penjualan divisi kopi di PT. Immanta Buds Gasindo Cilegon-Banten sudah berjalan dengan baik dengan pencapaian DSS dengan nilai rata-rata 4,05 dan persentase 81,65%, maka dapat dikategorikan Peringkat L (Tercapai Besar) dimana rentang skor >50% hingga 85% pada sebagian proses bagus telah berhasil dicapai.

Abstract

Key Word:

Information Systems Audit, Sales, COBIT 5.

Information system audit is a testing process to infrastructure technology information for know whether the system is in use and running Can ensure security assets owned. Sales information system audits can determine the success of a company. The aim is to find out the audit of the coffee division sales information system at PT. Immanta Buds Gasindo Cilegon-Banten uses the Cobit 5 Framework. Research methods This uses quantitative methods with method combined interviews based on COBIT questions, observations done For strengthen results study. This research resulted in the audit process of the coffee division sales information system at PT. Immanta Buds Gasindo Cilegon-Banten already walk well with DSS achieve with an average value of 4.05 and a percentage of 81.65%, it can be categorized as Rating L (Large Achieved) where score range >50% to 85 % in part great process has been succeed achieved.

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INTRODUCTION

This research will discuss the audit of the coffee division sales information system at PT. Tunas Immanta Gasindo Cilegon-Banten. The company operates in the retail grocery sector. Based on the results of direct observations at PT. Tunas Immanta Gasindo Cilegon-Banten has several problems that occur, especially regarding the results of audits carried out every month, where product quantities often lose or do not match, especially coffee products when carried out during the audit process. The data for the last 4 months regarding coffee product losses is as follows:

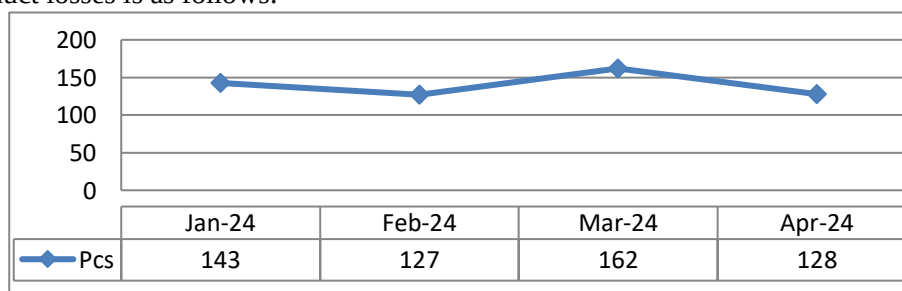


Figure 1. PT audit results. Tunas Immanta Gasindo Cilegon-Banten Branch

Source: PT audit results. Tunas Immanta Gasindo Cilegon-Banten Branch

Based on the data above, it shows that almost every month at PT. Tunas Immanta Gasindo Cilegon always experiences loss or non-conformity of goods, especially coffee products. In January 2024 the number of lost coffee products was 143 pcs, while in February 2024 it decreased by 127 pcs, however in March 2024 the loss of coffee products increased further, namely 162 pcs and in April 2024 it decreased again by 128 pcs.

Data is lost or non-compliant during the audit process, especially for coffee products, because the company's system still does not support overall sales, so data errors occur during the audit process. One of the problems that often occurs is that when inputting product sales, double entries often occur, *resulting* in a mismatch between the actual data and the system.

The next problem that often occurs is because sales data has not been *calculated* (not calculated) in situations where the sales transaction data that has occurred has not been processed or calculated as a whole to produce a complete sales report. To overcome this problem, actions need to be taken such as speeding up data input, running a calculation *batch process*, correcting data errors, restoring system connections, or completing the data integration process. However, these actions must be carried out completely and accurately. The next problem is that *negative stock* is often found, such as errors in inputting data simultaneously which occurs when both cashiers carry out sales transactions for the same goods, so this can cause stock records to be inaccurate and show negative stock.

The problem regarding data inconsistencies had actually been notified to the company leadership, but in this case the company did not respond seriously, the result of data errors during the audit process had an impact on employees who felt disadvantaged because the data that was allegedly lost had to be completely replaced by the employee by taking a salary deduction.

The results of the description regarding audit system problems have been carried out by previous research, namely by (Zuraidah, Sulthon, 2022) the title " Sales Information System Audit in MSME MSMEs Using Cobit 5 Framework which states that for all domains it has not reached the target level and requires improvements as well as improving problematic applications, accuracy of product delivery, company human resources within it, and the use of technology that supports sales transactions.

METHOD

The following is a design of operating system procedures, especially for the sales of the coffee division at PT. Tunas Immanta Gasindo Cilegon-Banten:

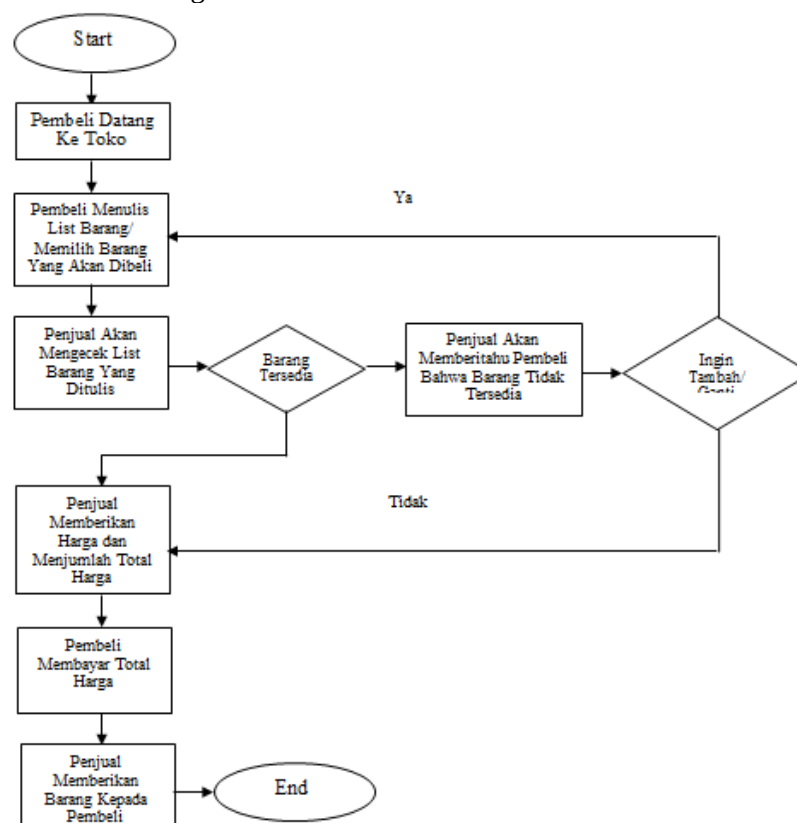


Figure 2. Flowchart of the Process of Purchasing Goods by Buyers

In Figure 2, the old system runs from the time the buyer comes to the shop and then gives a list of what items they want to buy. The seller will determine whether the items on the list are available or not. Then the seller or cashier will add up the total price of the goods and then the buyer will pay that price.

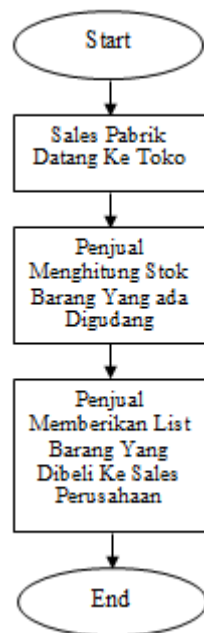


Figure 3. Goods Restock Process

In Figure 3, the process of restocking goods, the first factory sales person comes to the shop. Then the seller will calculate the stock of goods in the warehouse. Then, the seller will provide a list of items he wants to buy to the company sales.

The method used in the research is quantitative, using case studies, which is a systematic way of looking at an event, collecting data, analyzing information, and reporting results. In this case study, there is a data collection method carried out by means of interviews combined based on COBIT questions, observations are carried out to strengthen the research results.

Cobit 5 provides guidelines for mapping and selecting domains and processes so that the assessment is in accordance with the needs of the research being carried out, which of course refers to the strategic objectives of the research object in terms of optimizing the sales information system for the coffee division at PT. Tunas Immanta Gasindo Cilegon Banten Using the Cobit 5 Framework.

Table 1. Enterprise Goals

Figures 4—COBIT 5 Enterprise Goals

BSC Dimensions	Enterprise Goals	Relations to Governance Objectives		
		BenefitsRealisation	Risk Optimisation	ResourcesOptimisation
Financial	1. Stakeholders value of business investments	P		S
	2. Portfolio of competitive products and services	P	P	S
	3. Managed business risk (safeguarding of assets)		P	S
	4. Compliance with external laws and regulations		P	
	5. Financial transparency	P	S	S
Customers	6. Customer-oriented service culture	P		S
	7. Business service continuity and availability		P	
	8. Agile responses to a changing business environment	P		S
	9. Information-based strategic decision making	P	P	P
	10. Optimisation of service delivery costs	P		P
Internal	11. Optimisation of business process functionality	P		P
	12. Optimisation of business process costs	P		P
	13. Managed business change programmes	P	P	S
	14. Operational and staff productivity	P		P
	15. Compliance with internal policies		P	
Learning and Growth	16. Skilled and motivated people	S	P	P
	17. Products and business innovation culture	P		

RESULTS

Mapping Results

The mapping of enterprise goals into IT-related goals can be seen in the table below.

Table 2. Mapping enterprise goals into IT-related goals

			Figures 17—Mapping COBIT 5 Enterprise Goals to IT-related Goals																
			Enterprise Goals																
			Stakeholders value of business investments	Portfolio of competitive products and services	Managed business risk (safeguarding of assets)	Compliance with external laws and regulations	Financial transparency	Customer-oriented service culture	Business service continuity and availability	Agile responses to a changing business	Information-based strategic decision making	Optimisation of service delivery costs	Optimisation of business process functionality	Optimisation of business process costs	Managed business change programmes	Operational and staff productivity	Compliance with internal policies	Skilled and motivated people	Products and business innovation culture
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
IT-related Goals			Financial					Customers					Internal					Learning and Growth	
Financial	01	Alignments of I.T and business strategy	P	P	S			P	S	P	P	S	P	S	P			S	S
	02	I.T compliance and support for business compliance with external laws and regulations			S	P											P		
	03	Commitment of executive management formaking IT-related decisions	P	S	S					S	S		S		P			S	S
	04	Managed IT-related business risk			P	S			P	S		P			S		S	S	
	05	Realized benefits from IT-enabled investments and services portfolio	P	P				S		S		S	S	P		S			S
	06	Transparency of IT costs, benefits and risks	S		S		P				S	P		P					
Customers	07	Delivery of I.T services in line with businessrequirements	P	P	S	S		P	S	P	S		P	S	S			S	S
	08	Adequate use of applications, informationand technology solutions	S	S	S			S	S		S	S	P	S		P		S	S
Internal	09	IT agility	S	P	S			S		P			P		S	S		S	P
	10	Security of information, processing infrastructure and applications			P	P			P								P		
	11	Optimisation of I.T assets, resources andcapabilities	P	S						S		P	S	P	S	S			S
	12	Enablement and support of business processes by integrating applications andtechnology into business processes	S	P	S			S		S		S	P	S	S	S			S
	13	Delivery of programmes delivering benefits, on time, on budget, and meeting requirements and quality standards	P	S	S			S				S		S	P				
	14	Availability of reliable and useful information for decision making	S	S	S	S			P		P		S						
	15	I.T compliance with internal policies			S	S											P		

Learning and Growth	16	Competent and motivated business and I.T personnel	S	S	P			S		S					P		P	S
	17	Knowledge, expertise and initiatives for business innovation	S	P				S		P	S		S		S		S	P

Mapping It-Related Goals Into The Cobit Process 5

The next stage is mapping from IT-Related Goals to Processes included in the Domain in COBIT 5. The results of the mapping can be seen in the table below:

Table 3. Mapping IT-Related Goals into Processes

Process	Process Name	It Related Goals							
DSS01	Working settings	1	5	9	11	14	16	17	
DSS02	Management of service requests & events		S	S	S	P	S	S	
DSS03	Problem settings	P	P	P	P	P	P	P	
DSS04	Continuous setting	P	P	P	P	P	P	P	
DSS05	Security service settings				P	P			
DSS06	Business process control settings	P	P	P	P	P	P	P	
MEA01	Monitoring, evaluating, & assessing performance & suitability				P		S	P	
MEA02	Monitoring, evaluation, & assessment of internal control systems	P	P	P	P	P	P	P	
MEA03	Supervision, evaluation & assessment of external needs fulfillment	P	P	P	P	P	P	P	

Mapping *IT-related goals* into processes to align IT-related agency goals into the COBIT 5 process. The existence of a dominant linkage is indicated by the IT-related goals column being completely filled. Based on the results of the COBIT 5 process mapping in table 4.4, it can be seen that 5 of the 9 processes have been identified, namely DSS03, DSS04, DSS06, MEA02, and MEA03.

Recapitulation Results

The DSS03 process involves steps to identify and classify problems and their causes, as well as providing solutions to prevent similar incidents from occurring in the future. In order to implement this process, researchers have sent questionnaires to a number of respondents. After respondents have filled out the questionnaire, the next step is to calculate the results of the questionnaire. To carry out this calculation, researchers used Microsoft Excel.

The results of this calculation aim to obtain an average value, which will reflect the company's ability to provide solutions. The results of this calculation aim to obtain an average value, which will reflect the company's ability to provide solutions to overcome problems when incidents occur and prevent incidents. something similar happened again. Below is a graph of *the capability maturity assessment* in the DSS02 *Manage Service Request and Incident* process:

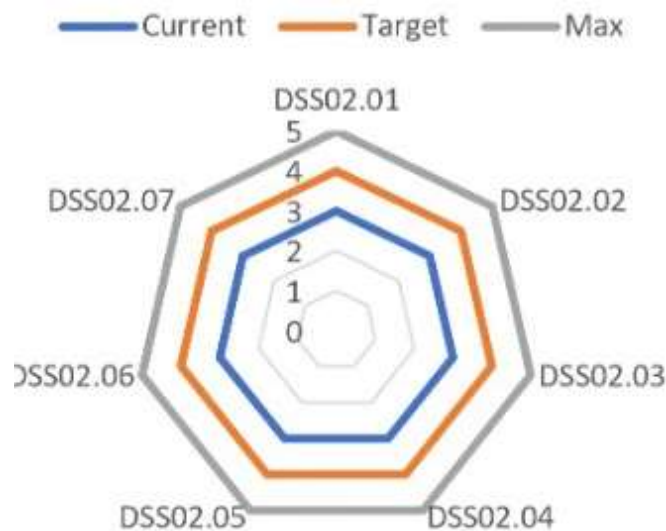


Figure 3. DSS02 Representation Diagram

The following is a table containing the calculation results from the questionnaire distributed by the researcher:

Table 4. Recapitulation Results

Position	Head Shop	Head Adm	Cashier	Head Warehouse	Total	Average	Percentage
DSS03-1	5	5	5	4	19	4.75	98%
DSS03-2	4	4	4	4	16	4.00	80%
DSS03-3	5	5	4	5	19	4.75	95%
DSS03-4	5	5	4	4	18	4.50	90%
DSS03-5	4	4	4	5	17	4.25	85%
DSS03-6	4	4	4	4	16	4.00	80%
DSS03-7	4	4	4	4	16	4.00	80%
DSS03-8	5	5	5	5	20	5.00	100%
DSS03-9	5	4	5	5	19	5.75	95%
Total						4.40	88.9%

DSS06 which focuses on managing control mechanisms in business processes that use information systems. The aim is to ensure that business processes remain in line with established policies and regulations. To carry out the steps in implementing this process, researchers have sent questionnaires to a number of individuals who will respond. After the respondents have filled out the questionnaire, the next step is to carry out the calculation process for the results of the questionnaire. In this case, researchers used Microsoft Excel software to carry out the necessary calculations.

DISCUSSION

Measurement of questionnaire results is carried out by calculating the average value in each existing category. The aim is to obtain information about the extent to which the company understands existing risks and business processes. Below are the results of these calculations:

Table 5. Overall calculation results

No	Sub Domains	Average	Percentage
1	DSS03 (<i>Manage Problems</i>)	4.40	88.9%
2	DSS06 (<i>Manage Business Process Controls</i>)	3.70	74.4%
Total		4.05	81.65%

Based on the results of the coffee division sales information system audit at PT. Tunas Immanta Gasindo Cilegon-Banten using the Cobit 5 Framework in the DSS process domain achieved an average score of 4.05 and a percentage of 81.65%, so it can be categorized in Rating L (Large Achieved) where the score range is >50% to 85% for the most part process has been successfully achieved.

Reporting And Resulting

The following is a table of findings and recommendations to improve existing gaps:

Table 6. Findings and Recommendations

Findings	Recommendation
1. There is often loss of goods or inconsistencies in goods, especially in Torabika coffee products, every month	Employees, especially those in the goods reception department, must be able to check in more detail the goods sent by the supplier.
2. It often happens that when inputting product sales there is a double input/stain of a double note, causing a mismatch between the actual data and the system.	System improvements, especially regarding the cashier system so that it can be accessed easily when a double input error occurs/ double note is stained
3. Sales data has not been <i>calculated</i> (not yet calculated) in situations where the sales transaction data that has occurred has not been processed or calculated as a whole to produce a complete sales report.	Companies must update existing systems according to related problems felt by employees.
4. Often negative stock is a type of data input error which occurs when both cashiers carry out sales transactions for the same goods	The company must update the goods sales system so that in the process of inputting data between several cashiers there are no data errors

CONCLUSION

Based on the explanation explained by the author in the previous chapter, the conclusions are as follows: 1) Audit process of the coffee division sales information system at PT. Tunas Immanta Gasindo Cilegon-Banten has been running well, however there are several obstacles that occur, especially regarding the lack of job training provided by the company to employees; 2) the Cobit 5 Framework sales information system in the DSS process domain, it reached an average value of 4.05 and a percentage of 81.65%, so it can be categorized in Rating L (Large Achieved) where the score range is >50% to 85% for the most part. process has been successfully achieved.

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