



Analysis of the Effectiveness of Internal Control Systems for Receivables to Minimize Uncollectible Receivables at Pt. Abx

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ABSTRACT

This study aims to analyze the effectiveness of PT ABX's internal control system for accounts receivable in minimizing uncollectible accounts. PT ABX is a consumer goods distribution company that conducts large-scale credit sales. Despite having implemented standard operating procedures (SOP) for accounts receivable management, the company experienced a significant increase in uncollectible accounts receivable from 2021 to 2023, indicating weaknesses in the implementation of the existing internal control system. Employing a descriptive qualitative approach, this study uses the case study method and references the COSO framework, consisting of five components: control environment, risk assessment, control activities, information and communication, and monitoring. Data were collected through in-depth interviews, direct observations, and document reviews and were analyzed using NVivo 12 Plus software. The results indicate that, although the control structure has been designed, it has not yet been implemented optimally. Various challenges were identified, including weak segregation of duties, insufficient customer risk assessment, limitations in the information system, and a lack of integrated monitoring. These findings emphasize that internal control system effectiveness depends not only on the existence of written procedures, but also on consistent implementation and ongoing cross-functional coordination.

INTRODUCTION

In the context of globalization, the business world is developing at an increasingly rapid pace. A company's ability to manage cash flow effectively is one of the keys to operational sustainability and growth in an increasingly competitive business environment. Accounts receivable are a crucial component of cash flow arising from the sale of goods or services on credit. Companies are established with the aim of developing, generating profits, ensuring sustainability, and satisfying customers through the company's products and services (Handayani, 2020). To increase sales volume, companies need to have the right strategies to face market competition. Strategies that companies can use include expanding product variety, offering discounts and gifts to customers, and conducting credit sales. Credit sales are considered the most effective strategy for increasing sales volume and expanding market share; however, this policy also carries inherent risks, namely the potential for uncollectible receivables (bad debts). Uncollectible receivables can disrupt profitability, liquidity, and even threaten the company's business continuity. As explained by Brigham and Houston, working capital management, including accounts receivable, aims to balance profitability and risk (Brigham and Houston, 2018).

Companies need to implement appropriate and reliable control mechanisms to minimize the risk of bad debts. Internal control systems play a crucial role in this regard. Internal control is defined by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) (2013) as a process influenced by the board of directors, management, and other employees, designed to provide reasonable assurance regarding the achievement of objectives in terms of operational effectiveness and efficiency, reliability of financial reporting, and compliance with applicable laws and regulations. In accounting and finance literature, the importance of the role of internal control systems over accounts receivable has been widely recognized. Research conducted by Jannatul and Puji (2023) shows that companies with stronger internal control systems over accounts receivable tend to have lower levels of uncollectible accounts receivable. Additionally, research conducted by Lilis, Joelianti, and Didik (2024) shows that weaknesses in a company's internal control system are due to the failure to optimize the existing system in terms of recording accounts receivable, thereby limiting the effectiveness of analyzing the risk of uncollectible accounts receivable.

Based on the research conducted, there are significant differences in studies regarding the effectiveness of internal control systems for accounts receivable. In other words, there is still debate about how to measure effectiveness from a conceptual perspective. Many studies determine compliance with procedures but do not determine how effective the system is in achieving its primary objective, which is to reduce uncollectible accounts receivable. Not only are effective controls needed, but also the design and implementation of targeted controls, the system's ability to adapt to changes in the business environment and customer risk profiles.

Additionally, there is an empirical gap, as many quantitative studies with large samples may not fully understand how the implementation of internal control systems varies across specific organizations. There is still a lack of in-depth research using qualitative approaches or case studies on medium-sized companies in developing countries such as Indonesia. There are not many empirical studies that comprehensively evaluate how internal control systems for accounts receivable can help companies reduce the amount of uncollectible accounts receivable.

The following is the current asset data for 2021–2023 at PT ABX:

Tabel 1.1 Current Asset Data of PT. ABX

Current Assets	2023	2022	2021
Cash and cash equivalents	4.697.663.170	10.976.636.790	50.637.007.681
Account Receivable:			
Third Parties	260.685.997.871	130.865.979.871	82.574.988.571
Parties with special relations	-	-	-
Inventory	26.535.493	25.847.870	24.237.199
Advance payment of tax	2.119.680.755	1.911.608.575	900.104.098
Prepaid Expense	309.490.720	299.940.207	89.520.900
Total Current Assets	267.839.368.009	144.080.013.313	134.225.858.449

Data source : Financial Report of PT. ABX

As a trading company with large credit sales, PT ABX certainly faces challenges in managing the risk of uncollectible receivables. An analysis of the effectiveness of the current internal control system for receivables at PT ABX is crucial to identify areas that may require improvement or strengthening. Understanding the strengths and weaknesses of the existing internal control system will enable PT ABX to take appropriate corrective measures to ensure that trade receivables are managed optimally, thereby minimizing the negative impact of uncollectible receivables on the company's financial performance.

Based on available data, PT ABX's current assets showed a significant upward trend from 2021 to 2023. Current assets in 2021 were recorded at Rp 134,225,858,449, in 2022 at Rp 144,080,013,313, and in 2023 at Rp 267,839,368,009. However, despite the increase in current assets, the percentage of uncollectible receivables at this company also experienced a significant increase. In 2021, the percentage of uncollectible receivables was recorded at 15%, in 2022 it increased to 18%, and in 2023 it reached 23%. This increase in the percentage of uncollectible receivables indicates an imbalance between the increase in current assets and the quality of collectible receivables.

Management decisions regarding trade receivables play a crucial role in determining the success of internal control.

In managing the risk of uncollectible receivables, one way to measure the impact of uncollectible receivables on the company is by calculating provisions for bad debt, which is an important accounting step to anticipate potential losses caused by uncollectible receivables. The following is the calculation of bad debt provisions based on the percentage of uncollectible receivables to total receivables:

1. Year 2021: $15\% \times \text{Rp } 82.574.988.571 = \text{Rp } 12.386.248.286$
2. Year 2022: $18\% \times \text{Rp } 130.865.979.871 = \text{Rp } 23.555.876.377$
3. Year 2023: $23\% \times \text{Rp } 260.685.997.871 = \text{Rp } 59.957.779.510$

One of the main problems faced by PT ABX is the increasing percentage of bad debts from year to year. In 2021, bad debts were recorded at Rp 12,386,248,286 or 15% of total receivables, then increased to Rp 23,555, 876,377 or 18% in 2022, and surged dramatically to Rp 59,957,779,510 or 23% in 2023. This increase indicates that the internal control system in receivables management still has weaknesses that need to be addressed to help the company mitigate the growing risk of uncollectible receivables.

This phenomenon underscores the importance of evaluating the effectiveness of the internal control system for accounts receivable to ensure that the policies and procedures implemented are truly capable of minimizing the risk of uncollectible accounts receivable. This study aims to analyze the effectiveness of the internal control system for accounts receivable in minimizing uncollectible accounts receivable, providing in-depth understanding and relevant practical recommendations for the company. Therefore, the researcher intends to conduct research with the thesis title "Analysis of the Effectiveness of Internal Control Systems for Accounts Receivable to Minimize Uncollectible Accounts Receivable at PT ABX."

The objectives of this study are, first, to analyze the effectiveness of internal control systems for accounts receivable so that the risk of uncollectible accounts receivable can be minimized. Second, to identify strategies that companies can use to improve their internal control systems for accounts receivable in order to minimize the occurrence of uncollectible accounts receivable. This research also provides benefits for companies by offering practical benefits for various parties within the company, particularly in accounts receivable management and the effectiveness of internal control systems. The benefits for academics are that it can provide scientific information to develop knowledge, particularly related to internal control to reduce the potential for uncollectible accounts receivable in companies. In addition, the benefits for the community can be a reference so that the process of controlling business accounts receivable is carried out in accordance with procedures and laws and regulations.

LITERATURE REVIEW

Internal Control System

One important concept in accounting and management is the internal control system, which is intended to ensure that organizational goals are achieved. To understand the basics of this system, various frameworks and experts have provided complementary definitions. One of the most widely accepted definitions comes from the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In its integrated framework (COSO, 2013), the internal control system is not viewed as a single event, but rather as an ongoing process influenced and carried out by the board of directors, management, and all personnel of the entity. This process is specifically designed to provide reasonable assurance—not absolute assurance—regarding the achievement of various organizational objectives. A process influenced by the board of directors, management, and other personnel of the entity, designed to provide reasonable assurance as a guarantee in achieving the company's objectives, whether in operational activities, reporting, or corporate compliance, is the definition of internal control according to COSO. According to Romney, the essential main functions of an internal control system for the success of an organization (Romney, 2014) are:

- a. Preventive Control is one of the functions of an internal control system that focuses on preventing errors. This control is used to prevent losses to the company due to errors, fraud, and deviations.
- b. Detective Controls are one of the main functions of an internal control system aimed at detecting and identifying errors, fraud, and deviations that have occurred within the company. While preventive controls prevent issues, detective controls ensure that errors that slip through can be identified and corrected quickly before they have a broader impact.
- c. Corrective Control is part of the internal control system that aims to correct errors, inaccuracies, or fraud that have been detected through detective control. One of the objectives of this control is to correct problems that have occurred, prevent greater impacts, and create improvement plans to prevent the same errors from happening again.

"Corrective controls are designed to remedy problems that have been detected, ensuring that errors, fraud, and inefficiencies are properly addressed to safeguard organizational resources." (Arens et al.,2020).

Internal Control Components

The most widely recognized and used international internal control framework is the one published by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In its publication, "Internal Control - Integrated Framework" (2013), COSO defines internal control as a process influenced by the board of directors, management, and other personnel of an entity, designed to provide reasonable assurance regarding the achievement of the entity's objectives in its operations, reporting, and compliance (COSO, 2013). COSO internal control is a framework that combines professional practices to build efficient and effective business systems and processes. The functions and application of these five interrelated components influence the success of internal

control system implementation. These components provide a framework for the design, implementation, operation, and performance evaluation of internal control.

Elements of Internal Control Systems

The conceptual framework described by Mulyadi is often used in Indonesian accounting literature to explain the fundamental elements or “key components” of internal control systems (Mulyadi, 2016). The structure presented is slightly different but has the same essence, which is easier to understand and implement in practice in Indonesia.

Account Receivable Management

Receivables management is an integral part of a company's financial management that relates to the management of investments in accounts receivable. Receivables management involves determining the amount of receivables that a company should have, the credit terms offered to consumers, the collection policies to be used, and the evaluation of customer creditworthiness (Horne and Wachowicz, 2005). The key variables that need to be managed are part of the company's fundamental receivables policy. These variables include: (1) credit standards, which are the minimum financial strength criteria that customers must have to be eligible for credit; (2) credit terms, which include the credit period (payment period) and the existence of a cash discount if payment is made early; (3) overall credit policy, which is a combination of credit standards and terms; and (4) collection policy, which is the procedure the company takes to collect overdue receivables (Brigham and Houston, 2018).

Receivables reflect the amount of money that the company must receive from the sale of goods or services that have been made, but payment has not yet been received in cash when the transaction occurs. When giving receivables to customers, it is necessary to have an element of trust from the company that the customer will pay the amount owed at the agreed time.

Scope of Receivable Management

In addition to recording and billing, accounts receivable management is a strategic part of financial management. It involves a number of decisions and actions intended to effectively manage the company's investment in accounts receivable to support sales and profitability goals and reduce risk and costs.

Uncollectible Accounts Receivable

The business decision to sell goods on credit carries inherent risks, or uncollectible accounts receivable. This relates to the portion of accounts receivable that is estimated or believed to be uncollectible from customers. The recognition and management of uncollectible accounts receivable is an important part of accurate financial reporting and effective working capital management. Companies typically investigate the creditworthiness of debtors or customers before extending credit. This is done to reduce the amount of unpaid receivables so that the company does not incur losses. Since credit control does not guarantee that receivables can be collected in full, companies typically allocate a portion of uncollectible receivables to operating expenses.

Accounting Standards for Accounts Receivable

According to PSAK 71, accounts receivable are the rights of a company to receive money or other monetizable rights from the sale of goods or services, the granting of loans, or other transactions. In financial statements, companies must disclose the gross and net amounts of accounts receivable – after deducting allowances for doubtful accounts – as assets. PSAK 71 not only defines accounts receivable but also regulates the recognition, measurement, and recording of uncollectible or delinquent accounts receivable. A company's credit risk and the performance of accounts receivable that may be uncollectible must determine the estimate of the allowance for doubtful accounts receivable. In financial statements, the allowance for doubtful accounts receivable must be recorded and adjusted periodically by the company.

PSAK 72 replaces PSAK 23, which addressed the recognition of revenue, and establishes how companies recognize revenue from a transaction that involves revenue. PSAK 72 is a new accounting standard governing revenue from contracts with customers and subsequently became the sole standard governing revenue recognition for all industries.

Internal Control Over Accounts Receivable

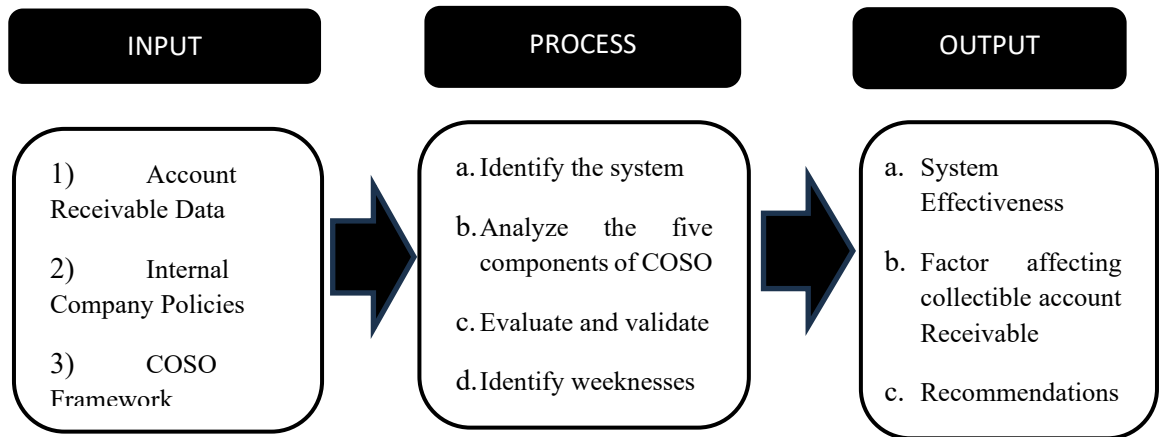
The goal of internal control in accounts receivable management is to ensure that accounts receivable align with company credit policies and can be collected on time. Important steps in accounts receivable control include the following (Surjadi, 2022):

- a. Establish credit policies and standards. This is a formal approval process by the authorized party before granting credit to customers. This policy serves as an initial control point and main guideline before a credit sale transaction occurs.
- b. Evaluating and Approving Customer Credit: This process involves assessing customer credibility before granting credit to ensure that they can pay on time. A credit analysis must be conducted before extending credit to new customers or a large number of existing customers.
- c. Processing Sales Orders and Shipping Goods ensures that credit sales are made only to customers with approved credit and sufficient limits.
- d. Accurate and timely billing means that invoices must be prepared accurately and sent to customers as soon as possible after goods or services are delivered.
- e. Accurate recording of receivables is the process of recording every receivable transaction in the company's financial system.
- f. Monitoring and Collecting Receivables: This process involves overseeing and evaluating the progress of customer receivables payments to ensure that payments are made as agreed and to prevent bad debts or late payments.
- g. Managing cash receipts involves avoiding loss or theft of money by maintaining strong controls over cash receipts from customers.
- h. Handling uncollectible accounts is the final step in dealing with accounts that may or may not be paid.
- i.

Conceptual Framework

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework is used to develop an effective internal control system for managing accounts receivable. The following framework, adapted from COSO, is applied in the company:

Figure 2.2 Conceptual Framework



This study uses the Input-Process-Output (IPO) approach within the conceptual framework to analyze the effectiveness of the internal control system for accounts receivable, with the aim of minimizing the risk of uncollectible accounts receivable, in reference to the COSO framework.

RESEARCH METHODS

This study will employ qualitative research using a descriptive method to describe the current state of groups of people, objects, spaces, thought systems, or events. The goal is to produce systematic, objective, and accurate descriptions. Qualitative research begins with formulating specific questions based on issues under discussion. These questions are more exploratory in nature and use open-ended inquiries to explore a phenomenon being studied. This allows informants to freely express their perceptions, opinions, experiences, and feelings to the researcher (Purwohedi, 2022). A qualitative approach is used to provide an in-depth understanding of how the internal control system for accounts receivable is implemented at PT ABX, the reasons for its effectiveness or ineffectiveness, and how it is implemented. This approach allows researchers to explore the meanings, perspectives, and experiences of those involved in the accounts receivable management process. The result is a comprehensive understanding of how effectively the internal control system minimizes uncollectible accounts receivable.

The qualitative method used in this study is a case study. A case study focuses on a specific unit of analysis that the researcher deems unique and capable of contributing to the understanding of a research topic (Purwohedi, 2022). The researcher chose the case study research type because the topic differs from previous studies in terms of business type and sales distribution that forms accounts receivable. The measure of the effectiveness of internal control over accounts receivable is whether all components of the COSO model are properly implemented and fulfilled.

RESULT AND DISCUSSION

PT ABX is a consumer goods distributor. Its sales targets are divided into three channels: sub-agents, retail, and marketing. Effective accounts receivable management is essential to a company's financial health. PT ABX's accounts receivable management efforts are based on a series of established SOP.

In addition to the secondary data, such as the SOP related to receivables management that were described earlier, this study also used primary qualitative data obtained through in-depth interviews with four key informants. All interview transcripts were imported into NVivo 12. NVivo is a program developed by Qualitative Solutions and Research (QSR) for analyzing qualitative data.

To analyze the effectiveness of the internal control of accounts receivable and minimize uncollectible accounts at PT ABX, this study uses the COSO (Committee of Sponsoring Organizations of the Treadway Commission) framework with Nvivo software. For analysis purposes, all obtained data sources were imported into QSR NVivo 12 Plus software. Figure 4.1 illustrates the process of importing interview transcripts.

Figure 4.1 Import Interview Transcript

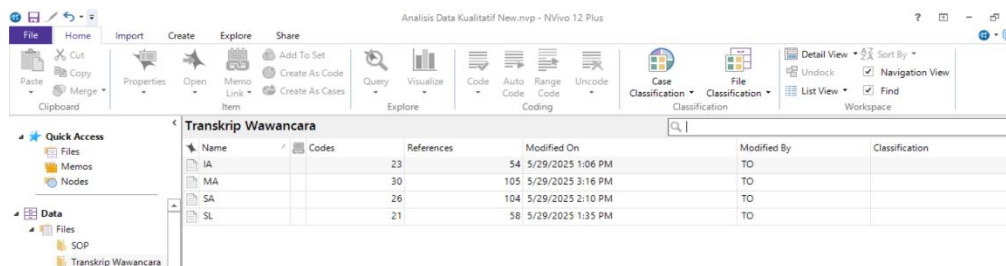
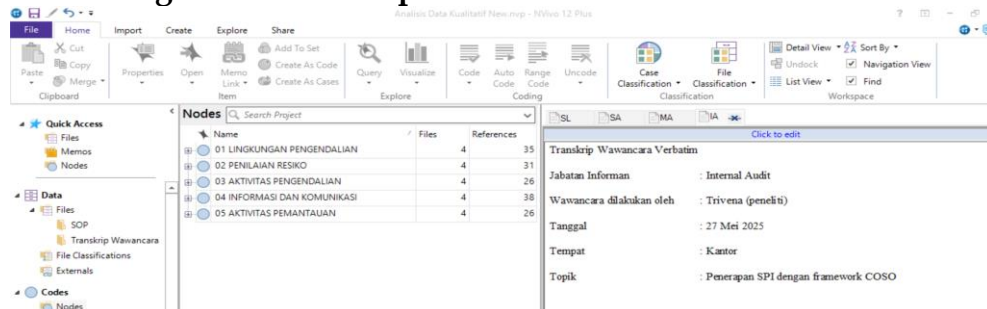


Figure 4.1 shows the process of uploading interview transcript data to Nvivo and saving it in files named according to the informant, ensuring that it cannot be mixed with other data. After uploading or importing the interview transcript data, the next step is for the researcher to code the data. During this process, the researcher creates basic categories based on emerging concepts, compares them, and combines related ones. Nodes play a crucial role in managing and analyzing qualitative data in Nvivo because the categories of themes analyzed by the researcher are stored in nodes during the coding process. Figure 4.2 shows the results of the text transcript coded in nodes.

Figure 4.2 Transcription Results Coded in Nodes



Based on Figure 4.4, the analysis of the COSO components in the form of an exploration diagram is as follows:

1. Control Environment

The exploration diagram shows that the control environment encompasses several subcategories, including top management commitment, values and integrity, professionalism, and segregation of duties. These elements help enhance a culture of compliance and ethics within the company. With the support of leadership, work culture, and regular training, PT ABX has created a strong control foundation.

2. Risk Assessment

This component describes how the company identifies and addresses risks related to uncollectible accounts receivable. Systematic efforts to assess customer risk are indicated by codes such as Risk Management, Transparency, Customer Financials, and SOP. However, time and resource constraints were identified as issues in this process.

3. Control Activities

Customer Billing, the Accounts Receivable Aging Report, and Tiered Authorization are subcodes in the control activities category. The diagram illustrates that the company has formal mechanisms to control its accounts receivable, including control evaluations and routine checks. Nevertheless, human error and field conditions suggest that technical and operational issues still hinder these operations.

4. Information and Communication

The information and communication diagram illustrates the importance of communication between information systems and departments. Some of the main obstacles identified are Application Feature Limitations, Communication Barriers, and Input Errors. Nevertheless, the company's efforts to update information and establish two-way communication between staff and supervisors suggest that it is committed to improving its internal information and communication systems.

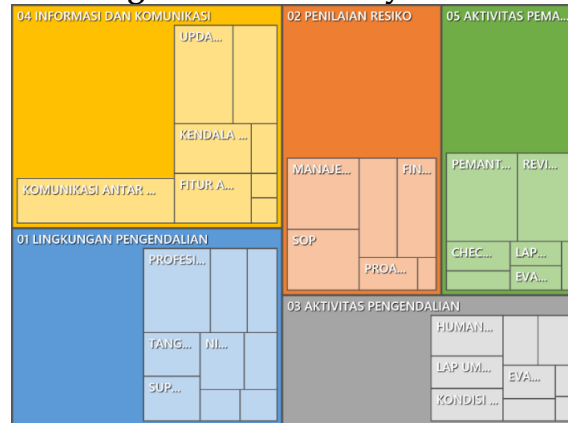
5. Monitoring Activities

The final component is monitoring activities, which include evaluating and following up on internal audit results. These results include procedure checklists, control evaluations, and audit recommendations. The diagram shows that the company regularly reviews and improves its internal control system; however, some procedures are not yet fully functional.

2. *Word Cloud*

The results of the interviews with the informants regarding the effectiveness of the internal control system for accounts receivable and the implementation of the COSO components are shown below. Figure 4.3 below illustrates the word cloud used in the study.

Figure 4.5. Hierarchy Chart



Source: Data analysis results from NVivo 12 Plus

Figure 4.5 shows the distribution and intensity of discussions and findings based on the number of coding references from interviews and observations of the five main components of the COSO framework.

a. Most Dominant Component: Information and Communication

The visualization highlights parts of the information and communication component and shows that issues with the reporting system, data updates, inter-division communication, and application features are significant problems in accounts receivable management at PT ABX. The quality and effectiveness of internal communication and the accounting information system are crucial to preventing uncollectible accounts receivable.

b. Risk assessment as a main pillar:

The risk assessment component is also important, with keywords such as risk management, standard operating procedures (SOP), proactivity, and financial risk. This shows that PT ABX has recognized the importance of identifying receivable risks from the beginning of transactions and has standard processes for mitigating risk.

c. Control Environment and Ethical Values

A significant proportion is allocated to the control environment. Topics such as professionalism, accountability, and supervision emerge, indicating that PT ABX has a work culture and organizational structure sufficient to support the implementation of internal controls. However, consistency and oversight are still needed.

d. Control Activities: Preventive Actions:

Control activities include controls over general reporting, evaluation of procedures, and human resource aspects. Although proportionally smaller, the presence of technical and administrative controls remains important in supporting the effectiveness of the accounts receivable control system.

e. Monitoring Activities: Routine Oversight

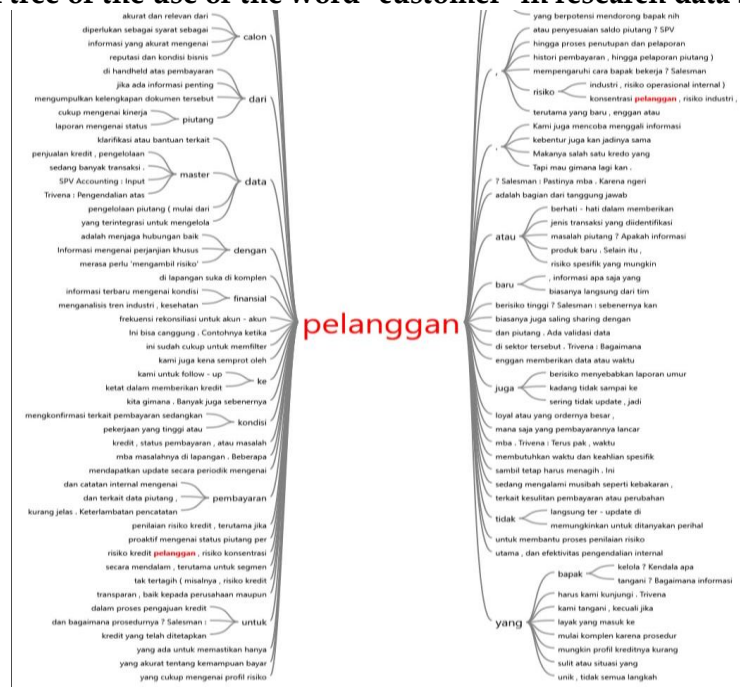
Reviews, evaluations, and checklists are the main themes of monitoring activities. Although routine monitoring accounts for a smaller proportion than other components, it is very important to ensure that all control systems are

running according to procedures and providing feedback for continuous improvement.

4. Text Search Query

The Text Search Query feature is used to analyze words that appear in the Word Cloud Query from various research data sources. In this study, the researcher wanted to understand how the word "customer" is used, as it was the most prevalent word in the collected research data. The search results are displayed in the word tree below:

Figure 4.6: Word tree of the use of the word "customer" in research data sources



Source: Data analysis results from NVivo 12 Plus

As Figure 4.6 shows, customer-related topics are very complex and involve various dimensions of the company's receivables control process. Customer risk is one of the most dominant dimensions, particularly in relation to credit risk and customer concentration. Informants expressed concern about high-risk customers, especially those from certain industry segments, new customers, and customers with inconsistent payment histories. Therefore, when making credit decisions, caution is encouraged, as is emphasizing the importance of evaluating accurate, complete, and up-to-date customer information.

Additionally, informants stated the importance of customer data as the primary material for risk analysis and assessment. This data includes supporting documents, accounts receivable reports, payment history, and external customer information, such as business reputation and financial conditions. In practice, managing this data presents various obstacles. Several informants stated that customer information is often outdated, does not reach the relevant parties, or is not formally documented. This condition poses a major challenge for companies in maintaining the effectiveness of internal control and the accuracy of financial reports.

Prospective customers are another prominent dimension in the initial risk assessment process. When assessing prospective customers, their ethical values, reputation, and future payment ability must be considered. This demonstrates that companies not only react to risks that have already occurred but also proactively approach the customer selection process from the beginning.

Informants emphasized the importance of long-term relationships with customers in terms of loyalty and fulfillment of obligations. Having good relationships with customers can facilitate communication and data clarification processes. Conversely, problematic relationships can potentially worsen accounts receivable risks.

5. Cluster Analysis

Cluster analysis was conducted by researchers to perform analysis based on word similarity, meaning that words contained in selected nodes would be compared. Nodes with a higher level of similarity based on word frequency and occurrence would be displayed in groups. Conversely, nodes with a lower level would be displayed separately.

Figure 4.7. Horizontal Dendrogram

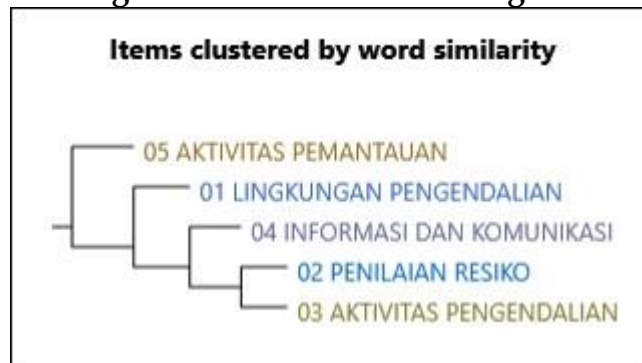


Figure 4.7 illustrates the outcomes of analyzing the five COSO components based on word similarity. This method was employed to understand the linguistic relationships between the terms and ideas of each component, as well as their function in internal control practices.

The clustering results indicate that risk assessment and control activities are the two most semantically similar components. This suggests a strong relationship between the risk identification process and the control measures applied to accounts receivable. Aligning risk assessment with the implementation of control policies at PT ABX is crucial to preventing uncollectible accounts receivable.

Next are information and communication, which indicates that internal information dissemination and reporting processes strongly support the implementation of risk assessment and control activities. This underscores the importance of accounting information systems for tracking accounts receivable and responding to customers.

Meanwhile, the control environment is in a slightly separate group, indicating that, semantically, this term has a broader scope. Nevertheless, as the main foundation of the internal control system at PT ABX, the control environment still plays a role in determining the system's overall effectiveness, including in accounts receivable management.

Lastly, monitoring activities are the most distinct component linguistically. This reflects the fact that these activities are evaluative and act as an overall supervisor of the control system. In practice, routine monitoring of the implementation of internal control procedures for accounts receivable is critical for identifying weaknesses and taking prompt corrective action.

Overall, this analysis reinforces the understanding that, while the five COSO components are interrelated, they have distinct roles and characteristics in promoting the effectiveness of the internal control system, particularly in minimizing the risk of uncollectible accounts receivable at PT ABX.

DISCUSSION

Effectiveness of the Internal Control System for Accounts Receivable Implemented by PT ABX

We conducted an in-depth analysis of PT ABX's internal control system for accounts receivable using a COSO-based approach and exploratory text data methods, including activity diagrams, word clouds, hierarchy charts, text search queries, and horizontal dendrograms. The results indicate that PT ABX's internal control over accounts receivable is not fully effective in minimizing uncollectible accounts. Several important findings are as follows:

1. Activity diagram analysis results

The activity diagram obtained from the five COSO components (control environment, risk assessment, control activities, information and communication, and monitoring) shows that:

- a. Rules and regulations are available, but they are not consistently applied, especially when monitoring accounts receivable transactions.
- b. There are obstacles regarding the separation of functions between the sales department and the accounts receivable department.
- c. Routine activities, such as customer verification, assessment of late payments, and collections, have not been carried out.

These issues indicate that although there is an administrative system, it has not been effectively implemented to identify and prevent problematic accounts receivable.

2. Results of the Word Cloud

The word cloud shows words that appear frequently, such as: "customer," "control," "internal," "information," "how," "salesman," "reconciliation," "payment," "accounting," "ensure," and "communication."

This shows the importance of communication and reconciliation between departments, as well as the importance of accounting and information in controlling accounts receivable. The many occurrences of the word "how" also indicate significant questions about technical implementation. The word cloud analysis revealed that:

- a. The focus of internal control is not strong enough on prevention.
- b. There are communication gaps between the sales and accounting departments.
- c. Customer monitoring and payment procedures still need improvement.

3. Results of the Hierarchy Chart and Horizontal Dendrogram

The hierarchy chart and horizontal dendrogram group frequently occurring terms into related clusters.

- a. Transaction and recording activities, such as payments, reconciliation, and verification.
- b. Related parties, such as customers, accounting, management, and supervisors.
- c. Main problems: delays, limited information, communication barriers, and inconsistent procedures.

Based on this mapping, it can be concluded that:

- a. In addition to recording techniques, communication structure, inter-functional coordination, and monitoring are also problematic in PT ABX; and
- b. quick decision-making is not possible because the system is not yet capable of systematically assessing credit risk based on historical customer data or managing information.

Quick decision-making is not possible because the system cannot yet systematically assess credit risk based on historical customer data or manage information.

4. Results of Text Search Query:

A text search analysis using keywords such as "receivables," "control," "risk assessment," "customers," and "payment" reveals that:

- a. The term "receivables" frequently appears alongside words such as "problematic," "delay," and "procedures."
- b. "Risk assessment" appears only occasionally, indicating there is no systematic method for identifying customer risks.
- c. Terms such as "early warning," "customer scoring," and "credit policy" do not appear with the frequency that would be expected in an effective accounts receivable control system.

This suggests that the internal control system lacks a proactive approach to accounts receivable risk.

Considering the overall results of the data exploration and analysis of internal control components, it can be concluded that the accounts receivable internal control system at PT ABX still needs improvement. Although the system has been structurally built, it is inefficiently implemented and lacks a robust information and monitoring system. The main weaknesses are:

- a. Insufficient monitoring of problematic customers.
- b. Lack of communication between departments when handling accounts receivable.
- c. Absence of a data-based customer risk assessment system.
- d. Weak supervision of procedure implementation.
- e. These issues have led to an increase in uncollectible accounts receivable, which could threaten the business's long-term financial stability and liquidity.

Improvement Strategies for the Internal Control System for Accounts Receivable at PT ABX

After conducting an exploratory data visualization analysis using various tools, such as activity diagrams, word clouds, hierarchy charts, text search queries, and horizontal dendrograms, it appears that PT ABX is having difficulty implementing and integrating components. Therefore, to improve the efficiency of the existing internal control system in reducing uncollectible accounts receivable, several approaches can be suggested for improvement. The following improvement strategies are based on the obtained findings:

1) Strengthen customer credit risk assessment functions.

The word cloud and text search query results indicate weak customer risk assessment, as evidenced by the minimal use of terms such as "credit analysis," "customer scoring," and "early warning." The recommended strategies are as follows:

- a. Implement a customer credit scoring system based on payment history, transaction value, and delinquency history.
- b. Set credit limits and receivables tenor adjusted to customer risk profiles.
- c. Conduct periodic reviews of customer credit status and provide early warning signals of potential default.

2) Improving Coordination and Separation of Duties

The hierarchy chart and horizontal dendrogram indicate the overlap of functions between the sales and accounting departments. This overlap creates potential conflicts of interest and weak control. Recommended strategies:

- a. Implement a clear separation of functions between the department that provides credit and collects payments (sales) and the department that records transactions (accounting).
- b. Appoint a dedicated team to oversee accounts receivable management activities and ensure compliance with applicable SOPs.
- c. Improve cross-departmental coordination by holding regular meetings or forums to discuss problematic accounts receivable.

3) Implement an integrated accounts receivable information system.

The word cloud highlights the importance of "information" and "communication," but also indicates limitations in the effectiveness of both. Additionally, the text search query reveals a lack of data connectivity. Recommended strategies:

- a. Develop or use an integrated ERP/CRM system that can instantly store and manage transaction, due date, and customer billing data.
- b. Give relevant units sufficient access to utilize data simultaneously.
- c. Create an accounts receivable monitoring dashboard displaying the accounts receivable completion rate, the ratio of problem accounts receivable, and the aging schedule.

4) Strengthen internal monitoring and evaluation activities.

Monitoring of the billing process has not been carried out systematically or continuously, as indicated by the activity diagram and horizontal dendrogram. The recommended strategy is:

- a. Form a special internal audit team for accounts receivable to oversee the effectiveness of accounts receivable controls and investigate problematic accounts receivable.
- b. Periodically (monthly or quarterly), prepare accounts receivable monitoring reports accompanied by trend analysis and recommendations for further action.
- c. When assessing accounts receivable management performance, such as Days Sales Outstanding (DSO) and collection rate, key performance indicators (KPI) must be implemented.

5) Training and Competency Improvement of Human Resources

In implementing control, humans play an important role, as reflected in the word cloud that brings up words such as "salesman," "do," and "how." However, it also reflects the possibility of ignorance or inconsistency in implementation. The recommended strategies are:

- a. Sales and finance staff should undergo regular training on accounts receivable control procedures, credit policies, and collection ethics.
 - b. Create and make accessible to all employees a standard operating procedure (SOP) manual on accounts receivable control.
 - c. Conduct internal socialization and awareness campaigns related to internal compliance to increase awareness of accounts receivable risks.
- 6) Improve documentation and operational procedures.

The Hierarchy Chart indicates weak documentation and inconsistent reconciliation. The recommended strategies are:

- a. Develop and implement clear, documented standard operating procedures (SOPs) for all processes, from credit granting to collection.
- b. Perform routine accounts receivable reconciliation between financial records and collection activities.
- c. Ensure that every transaction and action related to accounts receivable has a documented audit trail.

The recommended improvement strategies, based on the results of the exploration and analysis, aim to enhance the effectiveness of the internal control system for accounts receivable at PT ABX. These strategies cover managerial, procedural, technological, and human resource aspects. The improvements focus on information integration, risk evaluation, separation of duties, and training personnel responsible for accounts receivable management. Comprehensive implementation of these strategies is expected to significantly reduce the risk of uncollectible accounts receivable and support the company's long-term financial health.

CONCLUSION

Based on the analysis in Chapter IV, PT ABX's accounts receivable internal control system is based on standard operating procedures (SOPs) that cover the entire management cycle. The company has documented an adequate control structure through four main SOPs for accounts receivable management: the General Sales Policy SOP, the Accounts Receivable Collection SOP, the Problem Accounts Receivable Resolution SOP, and the Trade Accounts Receivable Confirmation SOP. However, the internal control system for accounts receivable has not yet been implemented effectively. Data analysis using NVivo software revealed significant implementation gaps. Implementation is often characterized by delays, manual processes, a lack of documentation, inconsistent reporting, and inconsistent confirmations. These issues are visualized using word clouds, hierarchy charts, explore diagrams, text search queries, and horizontal dendrograms. Theoretically, the Committee of Sponsoring Organizations of the Treadway Commission (COSO) states that effective internal control consists of five main components: control environment, risk assessment, control activities, information and communication, and monitoring activities (COSO, 2013). However, the results of the study show that, although these five components have been designed into the company's SOP, they have not been implemented optimally.

1. There are limitations to building a culture of compliance with procedures in the control environment.
2. A comprehensive evaluation of creditworthiness or potential bad debts has not been carried out regularly in the risk assessment aspect.
3. Control activities tend not to be carried out in accordance with consistent time standards and procedures, particularly in the collection and settlement of receivables.
4. The absence of a real-time reporting system or a measurable escalation mechanism for information and communication is also considered a weakness.
5. The final aspect, monitoring, has not been carried out in an integrated, data-driven manner, resulting in a suboptimal evaluation of control performance. Therefore, although the internal control structure is available in the form of written policies and procedures, its effectiveness does not reflect the ideal internal control principles outlined by COSO. The increasing risk of uncollectible receivables is an implication of this condition and can ultimately affect the company's overall financial health. The findings of this study reinforce the assertion that the effectiveness of internal controls depends not only on the existence of policy documents, but also on consistent implementation, technological support, and ongoing cross-functional communication and monitoring (Arens, Elder & Beasley, 2017).

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