



DIJEFA:
**Dinasti International Journal of
Economics, Finance & Accounting**

E-ISSN: 2721-303X
P-ISSN: 2721-3021

<https://dinastipub.org/DIJEFA> ✉ dinasti.info@gmail.com ☎ +62 811 7404 455

DOI: <https://doi.org/10.38035/dijefa.v5i6>
<https://creativecommons.org/licenses/by/4.0/>

Determination of Operational Costs of PT. Antam Tbk. West Kalimantan Bauxite Mining Business Unit: Types of Letter of Credit (LC), Terms of Letter of Credit (LC), and Transaction Efficiency

Indra Fajar Herdianan^{1*}, Hapzi Ali²

¹ Graduate School of Master of Management, Universitas Terbuka, Indonesia, indrafherdianan@gmail.com

² Graduate School of Master of Management, Universitas Terbuka, Indonesia, hapzi.ali@gmail.com

*Corresponding Author: indrafherdianan@gmail.com

Abstract: This article conducts a study related to the Determination of Operational Costs of PT. Antam Tbk. West Kalimantan Bauxite Mining Business Unit: Types of Letter of Credit, Terms of Letter of Credit, and Transaction Efficiency. The research objects were obtained through online literature reviews such as Google Scholar, Semantic Scholar, and other academic online media as research objects. The main objective of this study is to formulate hypotheses regarding the influence of these variables for future research. The research method uses Systematic Literature Review and Library Search with the utilization of Artificial Intelligence (AI) to obtain related research, sourced from open access journals and e-books. The results of this study are: 1) Types of Letter of Credit affect Operational Costs; 2) Terms of Letter of Credit affect Operational Costs; and 3) Transaction Efficiency affects Operational Costs.

Keywords: Operational Costs, Types of Letter of Credit (LC), Terms of Letter of Credit (LC), Transaction Efficiency

INTRODUCTION

PT. Antam Tbk is one of the State-Owned Enterprises (BUMN) engaged in the mining sector with several types of commodities, including Precious Metals Products (Gold) and Base Metals Products (Nickel Ore, Bauxite Ore and Feronickel). In this case, PT. Antam Tbk is one of the exporters of commodities that fall under Base Metals Products.

Where in the export transactions conducted on that commodity, the payment process uses a Letter Of Credit (hereinafter referred to as LC). This payment method is one of the payment methods in international trade regulated by the government (through the Minister of Trade's regulations) and is aimed at ensuring payment certainty for each exported commodity.

As for each export transaction, it is first initiated by the signing of a sales contract (Sales Contract) between the seller (seller/shipper/beneficiary) and the buyer (buyer/applicant). Second, the buyer will open an Irrevocable LC at the Issuing Bank (the bank in the buyer's

country/the bank where the buyer issues the LC) by bringing the sales contract signed by both parties as one of the requirements to open the LC. Third, the Issuing Bank will send the LC to the Advising Bank to be forwarded to the seller (in this case PT. Antam Tbk.). Fourth, the seller will only carry out the shipment/loading of goods onto the vessel after obtaining the LC to ensure payment for the goods to be shipped, and to comply with the implementation of export trade activities in accordance with applicable regulations and laws. Fifth, after all loading activities have been completed and all shipping documents have been issued, the seller will present the documents to the Advising Bank. After the presentation, the Advising Bank will forward the documents to the Issuing Bank to obtain payment for the goods that have been shipped.

The use of the LC payment method in the above transaction does not mean it is without risk. There are several things that can cause the emergence of discrepant documents or discrepancies. Which means that when discrepancies arise, there will be a potential for default. (regarding the goods that have been shipped). Because the payment from the Issuing Bank to the seller (via the Advising Bank) is highly dependent on the buyer, whether the buyer will accept the documents with the mentioned discrepancies or return the documents to the seller.

PT. Antam Tbk. West Kalimantan Bauxite Mining Business Unit, which is one of the business units of PT. Antam Tbk. whose operational activities involve the sale of bauxite ore commodities, is certainly not free from the aforementioned risks.

Based on the background of the aforementioned problem, this article is created to find hypotheses that will be thoroughly examined in the subsequent research, as follows:

- a. Does the Type of Letter of Credit (LC) affect operational costs?
- b. Does the Terms of a Letter of Credit (LC) affect operational costs?
- c. Does transaction efficiency affect operational costs?

METHOD

The writing of this article uses a Literature Review approach, with methods including Library Search and Systematic Literature Review (SLR). The analysis is conducted qualitatively, and the sources are obtained through online searches via Google Scholar, Semantic Scholar, and other online academic applications.

According to Ali, H., & Limakrisna, N. (2013), research is a series of organized investigations conducted to provide information that can be used to solve a problem. The implementation of research involves hypothesis testing and data analysis carried out simultaneously, resulting in a final answer in the form of a conclusion that can be used in the formulation of recommendations for decision-making in an effort to solve the problem.

The use of literature review in hypothesis formulation is related to the research question and will subsequently serve as a basis for comparison with the results or findings revealed in the research. (Ali, H. & Limakrisna, N., 2013).

Fink (2020) defines a literature review as a review of academic literature aimed at assessing the status of existing research, identifying gaps, and developing a conceptual framework for further studies.

According to Machi and McEvoy (2022), a literature review must be systematic in order to identify key literature relevant to the research and support a deeper analysis.

Paul and Criado (2020) state that a Systematic Literature Review (SLR) is used to systematically collect and analyze research findings to provide a comprehensive view of a specific topic, while reducing selection bias.

RESULTS AND DISCUSSION

Through the background, objectives, and research methods that will be used above, the research results are as follows:

RESULTS

a. Theory Per Variable

1) Operational Costs

Operational costs include all expenses necessary to support the daily activities of an organization, including labor, maintenance, and administrative costs that are essential for smooth operations. (Pramono, A., 2018).

Operational cost analysis is important to identify cost components that can be reduced without compromising operational quality, especially in industries with high fixed costs. (Rahmat, T., 2020).

Optimal management of operational costs can provide a competitive advantage for the company through precise cost planning. (Wijayanto, B., 2021).

2) Types of Letter of Credit (LC)

Perbedaan utama antara *revocable* dan *irrevocable letter of credit* terletak pada fleksibilitasnya. *Revocable* LC memungkinkan bank penerbit untuk mengubah atau membatalkan LC tanpa persetujuan pihak penerima, sehingga kurang aman. Sebaliknya, *irrevocable* LC hanya dapat diubah dengan kesepakatan kedua belah pihak, memberikan tingkat keamanan yang lebih tinggi dalam transaksi internasional (Ismail, H., & Rahman, M. A., 2018).

Types of LC have significant differences in procedures and requirements, which must be understood by companies to maximize the benefits of LC. (Kurniawan, L., 2023).

Investopedia Team (2024) conveyed the types of LC (though this is by no means a comprehensive list):

a) Irrevocable LC

When it comes to LC, irrevocable LC are more prevalent than revocable ones. According to this, no changes or cancellations are permitted without everyone's approval. There are two types of irrevocable LC: confirmed and unconfirmed. It provides a high degree of protection for both the buyer and the seller because it cannot be changed or withdrawn without the consent of all parties.

b) Revocable LC

A revocable LC, on the other hand, gives the issuing bank the ability to change or terminate the credit without the beneficiary's approval. The issuer gains leverage via revocable LC. According to the terms of the contract, one party may change or discontinue the exchange at any moment, usually without the beneficiary's approval. Since the majority of beneficiaries do not accept them and the UCP does not provide for them, these types of LC are rarely seen very often.

c) Confirmed LC

A confirmation from a bank other than the issuing bank—usually the seller's bank—is added to a confirmed LC. An additional guarantee of payment is provided by this confirmation. For the seller, this provides an additional degree of security. The seller can rely on the confirming bank's guarantee of payment in addition to the credit of the issuing bank. When the recipient lacks confidence in the other party's bank, this type may be the most appropriate.

d) Unconfirmed LC

An unconfirmed LC does not require confirmation from another bank; it is only guaranteed by the issuing bank. For the buyer, this kind of letter could be easier and less costly, but for the seller, it provides less assurance. The seller is consequently forced to depend only on the issuing bank's creditworthiness,

which might not be enough, particularly if the seller does not know the other parties.

e) Standby LC

Standby LC function somewhat differently than the majority of other kinds. The standby LC is due when the beneficiary can demonstrate that it did not get the promised amount in the event that a transaction fails and one party is not paid as much as should have been the case. This serves less as a way to facilitate a trade and more as insurance. They are frequently employed in a variety of contexts, such as building projects, global trade, and business dealings.

f) Transferable LC

The seller might assign all or a portion of the credit to another party via a transferable LC. When the seller is unable to complete the entire order themselves or when subcontracting specific parts of the transaction, this flexibility may be advantageous. By enabling the participation of many parties, such as a small business supplier or construction subcontractor, transferable LC simplifies the payment procedure and enables intricate transactions.

g) Revolving LC

The buyer can make repeated drawdowns up to a predefined maximum when using a revolving LC for various shipments over a given period of time. For continuing business relationships in which the buyer and seller do numerous transactions, this kind of LC is helpful. Realizing that there is a certain level of more trust involved because each party has a long-standing, familiar relationship is crucial in this situation. By removing the need to establish a fresh LC for every shipment, revolving LC streamlines the payment process and could be more practical and effective.

h) Red Clause LC

A unique provision in red clause LC permits the seller to get a portion of the payment before the item is shipped. The seller may utilize this advance payment, which is frequently called a "red clause advance," to finance the manufacture or acquisition of products intended for export. The seller may benefit financially from this type of LC, especially if they need money up advance to complete the order. Take, for instance, situations in which the seller might have to purchase particular, costly, and scarce raw materials in order to produce a custom order.

3) Terms of Letter of Credit (LC)

Terms of the LC include various conditions and stipulations, such as the delivery date, payment amount, and supporting documents that must be fulfilled for the payment to be processed. (Ananda, M., 2018).

The terms of the LC become an important instrument in ensuring the security of transactions for both parties, especially to prevent document discrepancies. (Iskandar, T., 2020).

Terms of the LC determine the limitations and obligations that must be fulfilled by the exporter to release the payment. (Pratama, I., 2022).

4) Transaction Efficiency

Transaction efficiency in international business is strongly influenced by the smooth administrative process and timely document management (Fauzi, R., & Handoko, T., 2020).

Transaction efficiency is a measure of how quickly and effectively transactions can be completed at minimal cost (Putra, M., 2019).

Transaction efficiency plays a role in maintaining the competitiveness of companies in the global market, especially in terms of speed of delivery and payment processing (Wijaya, D., 2023).

b. Previous Research and Relevant Articles

To answer the above hypotheses, relevant articles based on previous research and/or studies are summarized in Table 1.

Table 1. Relevant Research Findings

o.	Author (year)	Previous Research Results	Similarity with this Article	Difference with this Article	H
1	Alavi, H. (2016)	The type of Letter of Credit (LC) affects the company's operational costs, because with the use of LC, there will be payment certainty.	The type of Letter of Credit (LC) affects operational costs.	This article specifically focuses on the types of LC used in mining company.	H1
	Rosyid, P.A. (2015)	The type of LC affects cost losses (operational costs) and time losses, especially if there is a document discrepancy.	The type of Letter of Credit (LC) affects operational costs.	This article specifically focuses on the types of LC used in mining company.	H1
	Chen, L., & Li, Y. (2020)	The type of LC affects operational costs. Certain types of LC tend to have lower operational costs because they provide better financial security and reduce transaction risks.	The type of Letter of Credit (LC) affects operational costs.	This article specifically focuses on the types of LC used in mining company.	H1
	Hameed, A., & Zafar, S. (2019)	Terms on the LC directly affect operational costs. Favorable terms can reduce the company's financial burden.	Terms of the LC affect operational costs.	This article specifically focuses on the study of LC Terms (conditions) used in mining company.	H2
	Alazab, M., & Zaiem, A. (2022)	Operational costs are greatly influenced by the Terms on the LC, with longer payment terms often resulting in better cash flow management and cost reduction (on the Importer's side/the Applicant).	Terms of the LC affect operational costs.	This article specifically focuses on the study of LC Terms (conditions) used in mining company and examines it from the perspective of the Beneficiary (seller/shipper).	H2
	Yang, J.-H. (2021)	Terms on the LC significantly affect operational costs. (khususnya dalam hal logistik)	Terms of the LC affect operational costs.	This article specifically focuses on the study of LC Terms (conditions) used in mining company.	H2
	Wijaya, H. (2024)	Transaction efficiency affects operational costs/operational efficiency with the use of Digital Marketing.	Transaction efficiency affects operational costs.	Examining transaction efficiency (in the use of LC) on operational costs in mining company.	H3

Masroor, I. et al (2023)	Transaction Governance Structure (TGS) is positively correlated with transaction efficiency, where when transaction efficiency occurs, it can affect transaction costs/operational costs.	Transaction efficiency affects operational costs.	Examining transaction efficiency (in the use of LC) on operational costs in mining company.	H3
Sharma, K. (2024)	Transaction efficiency in e-commerce (in modern business) positively impacts operational cost efficiency.	Transaction efficiency affects operational costs.	Examining transaction efficiency (in the use of LC) on operational costs in mining company.	H3

DISCUSSION

a. Influence Between Variables

Based on theoretical studies and analyses, the discussion in this Literature Review article refers to related articles. The analysis of the influence between variables and the conclusion based on the study and theoretical analysis obtained are:

1) The Type of Letter of Credit (LC) Affects Operational Costs

One type of Letter of Credit (LC), namely an Irrevocable LC, provides payment certainty for every export transaction and/or shipment of export goods carried out by the exporter/seller/shipper/beneficiary, because the Issuing Bank cannot cancel or amend the LC in question except with an agreement between both parties. (whether it is the applicant or the beneficiary).

With the certainty of payment, the beneficiary tends to incur lower operational costs due to the assurance of financial security and reduced export transaction risks for the goods being shipped.

The type of LC affects operational costs; if the chosen/used LC type aligns with the company's needs (such as Irrevocable LC), there will be financial security, and the company's operational costs can be managed and controlled accordingly.

The type of Letter of Credit (LC) affects operational costs, in line with the research conducted by: (Alavi, H., 2016), (Rosyid, P. A., 2015) and (Chen, L., & Li, Y., 2020)

2) Terms (conditions) of Letter of Credit (LC) Affect Operational Costs

Terms (conditions) of the Letter of Credit (LC) that contain limitations and obligations that must be fulfilled by the exporter. When the terms in the LC mention CIF (Cost Insurance Freight), the exporter will be responsible for the costs incurred starting from the loading costs (until the goods are loaded onto the ship/carrier/vessel), the transportation costs from the loading port to the destination port/discharge port, and also including insurance costs. However, if the terms in the LC mention FOB (Free on Board), the exporter is only responsible until the goods are loaded onto the ship, carrier or vessel.

Terms (conditions) of the Letter of Credit (LC) affect operational costs, in line with the research conducted by: (Hameed, A., & Zafar, S., 2019), (Alazab, M., & Zaiem, A., 2022) and (Yang, J.-H., 2021)

3) Transaction Efficiency Affects Operational Costs

The efficiency of international transactions/trade with the use of LC can affect operational costs. With the use of LC, every international transaction/trade conducted can increase transaction efficiency (due to payment certainty, financial security, and

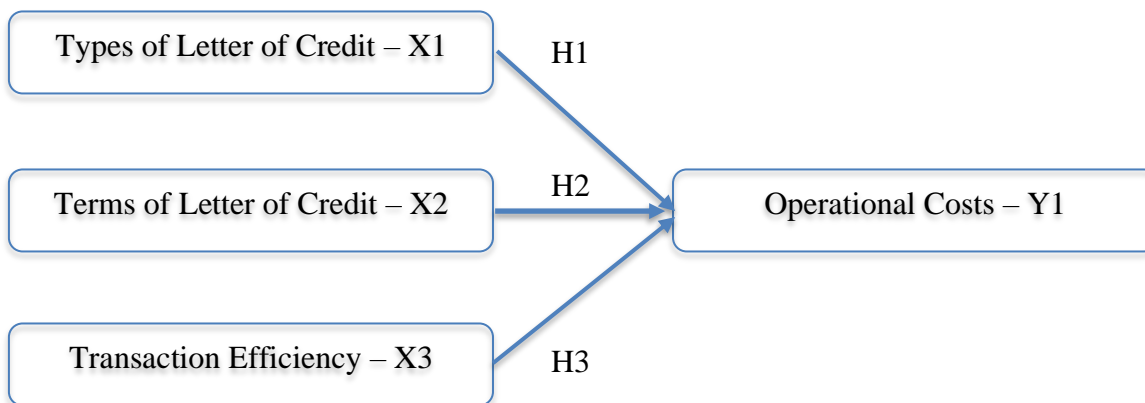
reduced transaction risk), and the increase in transaction efficiency aligns with the management of operational costs carried out by the company.

Transaction efficiency affects operational costs, in line with the research conducted by: (Wijaya, H., 2024), (Masroor, I. et al, 2023) and (Sharma, K., 2024)

b. Conceptual Framework

Referring to the problem formulation and the discussion of previous research relevant to this article, the conceptual framework is obtained as shown in Figure 1.

Figure 1. Conceptual Framework



Based on Figure 1: Conceptual Framework above, it can be concluded that the Types of Letter of Credit (LC), Terms of Letter of Credit (LC), and Transaction Efficiency have an impact on Operational Costs. In addition to these three variables, there are several other variables that can affect Operational Costs, including:

- a. Information and Technology Systems: (Suharto, B., & Yulianti, R., 2020); (Ashshidiqy, N., & Ali, H., 2019)
- b. Production and Utilization Capacity: (Setiawan, T., 2017); (Candana, D. M., & Ali, H., 2024)
- c. Quality of Human Resources: (Hidayat, R., & Setyo, S., 2016); (Nugroho, F., & Ali, H., 2022)

CONCLUSION

After discussing various aspects related to the Types of Letter of Credit (LC), Terms of Letter of Credit (LC), Transaction Efficiency, and Operational Costs. By selecting the appropriate type of LC and LC Terms (conditions), as well as achieving transaction efficiency that can be implemented by the company, it will positively correlate with the company's operational costs.

From this Literature Review, it can be concluded that:

- a. The type of Letter of Credit (LC) has an impact on operational costs;
- b. Terms (conditions) of Letter of Credit (LC) have an impact on operational costs;
- c. Transaction efficiency affects operational costs.

REFERENCE

Ananda, M. (2018). *Transaksi dan Pembayaran Internasional*. Bandung: Alfabeta.
Alavi, H. Documentary Letters of Credit, Legal Nature and Sources of Law. *Journal of Legal Studies*, 2016, Sciendo, vol. 17 no. 31, pp. 106-121. <https://doi.org/10.1515/jles-2016-0012>

- Alazab, M., & Zaiem, A. (2022). Evaluating the influence of letter of credit terms on operational costs: Evidence from the mining industry. *Resources Policy*, 75, 102284.
- Ali, H., & Limakrisna, N. (2013). *Metodologi penelitian (petunjuk praktis untuk pemecahan masalah bisnis, penyusunan skripsi, tesis, dan disertasi)*. Deepublish: Yogyakarta.
- Ashshidiqy, N., & Ali, H. (2019). Penyelarasan Teknologi Informasidengan Strategi Bisnis. *Jurnal Ekonomi Manajemen Sistem Informasi*, 1(1), 51-59.
- Candana, D. M., & Ali, H. (2024). *MODEL KINERJA DAN PRODUKTIVITAS KERJA KARYAWAN*. CV. Gita Lentera.
- Chen, L., & Li, Y. (2020). Exploring the relationship between letter of credit types and operational costs in mining sector. *Journal of Economic Behavior & Organization*, 173, 203-217.
- Fauzi, R., & Handoko, T. (2020). *Efisiensi dalam Sistem Pembayaran Global*. Jakarta: Kencana Prenada Media.
- Fink, A. (2020). *Conducting Research Literature Reviews: From the Internet to Paper*. Thousand Oaks, CA: Sage Publications.
- Hameed, A., & Zafar, S. (2019). Impact of letter of credit terms on operational costs in the textile sector. *Journal of International Trade & Economic Development*, 28(5), 575-591.
- Hidayat, R., & Setyo, S. (2016). Human Resource Quality and Its Impact on Operational Efficiency. *Human Resources Management Review*, 7(3), 120-128.
- Iskandar, T. (2020). *Perbankan dan Transaksi Internasional*. Surabaya: Erlangga.
- Ismail, H., & Rahman, M. A. (2018). The Role of Letters of Credit in International Trade. *Journal of International Financial Management*.
- Kurniawan, L. (2023). *Manajemen Transaksi Internasional*. Jakarta: Pustaka Ilmu.
- Machi, L. A., & McEvoy, B. T. (2022). *The Literature Review: Six Steps to Success*. Thousand Oaks, CA: Corwin.
- Masroor, I., Tasneem, S., Alam, M.N., Hossen, S.S., Nabi, M.N., & Ghosh, A. (2023). Transaction governance structure, institutional voids and transaction efficiency: An analysis of small and medium-sized enterprises in emerging markets. *Business Strategy & Development*.
- Nugroho, F., & Ali, H. (2022). DETERMINASI SIMRS: HARDWARE, SOFTWARE DAN BRAINWARE (LITERATURE REVIEW EXECUTIVE SUPPORT SISTEM (ESS) FOR BUSINESS). *JURNAL MANAJEMEN PENDIDIKAN DAN ILMU SOSIAL*, 3(1), 254–265. <https://doi.org/10.38035/jmpis.v3i1.871>
- Pramono, A. (2018). *Manajemen Biaya Operasional: Perspektif Bisnis*. Jakarta: Pustaka Indonesia.
- Pratama, I. (2022). *Manajemen Pembayaran dalam Ekspor Impor*. Bandung: Alfabeta.
- Putra, M. (2019). *Manajemen Keuangan dan Operasional Ekspor Impor*. Bandung: Alfabeta.
- Rahmat, T. (2020). *Keuangan Perusahaan: Teori dan Aplikasi*. Bandung: Alfabeta.
- Rosyid, P.A. (2015). *Sistem Pembayaran Impor dengan Letter of Credit Padapt Jaya Asri Garmindo Karangannyar*.
- Setiawan, T. (2017). Capacity Utilization and Cost Efficiency in Manufacturing Industries. *Journal of Industrial Engineering*, 5(2), 100-110.
- Sharma, K. (2024). *THE IMPACT OF E-COMMERCE ON OPERATIONAL COST EFFICIENCY IN MODERN BUSINESSES*. Sachetas.
- Suharto, B., & Yulianti, R. (2020). The Role of ERP Systems in Operational Cost Efficiency. *Journal of Information Systems*, 9(1), 45-58.
- Team, Investopedia (2024, March 07). Types of Letters of Credit. <https://www.investopedia.com/ask/answers/110614/what-are-different-types-letters-credit.asp>

- Wijaya, D. (2023). Sistem Pembayaran Internasional dan Efisiensi Transaksi. Jakarta: Rajawali Pers.
- Wijaya, H. (2024). Impact of Digital Marketing And Intellectual Capital On Business Performance (Case Study Of SMEs In Depok City, West Java). Best Journal of Administration and Management.
- Wijayanto, B. (2021). Manajemen Strategis untuk Bisnis Berkelanjutan. Surabaya: PT Elex Media Komputindo.
- Yang, J.-H. (2021, February 28). A Study on the Reasonable Choice and Utilization of Incoterms 2020 Rules from the Perspective of Logistics and Supply Chain Management. Journal of Korea Trade. Journal of Korea Trade. <https://doi.org/10.35611/jkt.2021.25.1.152>