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Transfer Pricing in Cable Industry: Comparative Arm's Length Profitability Using Tnmm Between Indonesian and Foreign Company

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Abstract

This study evaluates arm's length profitability in the Indonesian cable industry by comparing the Return on Sales (ROS) of listed companies with independent foreign comparables using a Transactional Net Margin Method (TNMM) framework. Although the OECD Transfer Pricing Guidelines and Indonesia's Minister of Finance Regulation Number 172 of 2023 provide a normative basis for comparability analysis, empirical evidence at the industry level remains limited. This study addresses this gap by applying a cross-jurisdictional comparability design within a capital-intensive manufacturing context, explicitly linking regulatory guidance with firm-level profitability assessment. The research adopts a descriptive-comparative approach using secondary financial data from Indonesian listed cable companies and independent foreign comparables identified through the ORBIS database. The results show that some companies fall within the interquartile range of comparable firms, while others deviate above or below the range, reflecting differences in operational performance, cost structures, and market conditions across firms and periods. These findings provide an empirical basis for assessing relative profitability positions; however, they should be interpreted as indicative rather than definitive evidence of compliance, given the reliance on external comparables and profitability-based testing. Overall, the study demonstrates that TNMM with ROS is analytically useful for evaluating profitability comparability in this context, while emphasizing the need for contextual interpretation beyond mechanical application of comparability criteria.

KEYWORDS

arm's length principle, cable industry, comparability analysis, transactional net margin method, transfer pricing.

Introduction

The cable industry plays a strategic role in the national development, as this sector provides essential components for electricity, telecommunications, and transportation networks that support modern economic activities. Power cables, telecommunications cables, and fiber-optic cables serve as fundamental infrastructure that ensures energy distribution and digital connectivity across various regions of Indonesia. The Indonesian cable market in 2024 is estimated at USD 1.5 billion and is projected to reach USD 2.4 billion by 2030, with a compound annual growth rate (CAGR) of 5.8 percent (Mobility Foresights, 2025). At the global level, the cable market is projected to reach USD 304.13 billion by 2030, with a CAGR of 5.44 percent (Intelligence, 2025). Another projection estimates annual growth of approximately 3.5 percent (Kumar, 2025). These projections indicate that the cable industry operates in a growing, competitive business environment, thereby encouraging increased production capacity and deeper integration into global value chains.

At the domestic level, the performance of the cable industry is reflected in several issuers listed on the Indonesia Stock Exchange, namely Jembo Cable Company Tbk, KMI

Wire and Cable Tbk, Sumi Indo Kabel Tbk, Kabelindo Murni Tbk, Supreme Cable Manufacturing and Commerce Tbk, Tembaga Mulia Semanan Tbk, Voksel Electric Tbk, and Communication Cable Systems Indonesia Tbk. Data from companies' annual reports, compiled using the London Stock Exchange Group (LSEG), show an increasing trend in profits and business growth, indicating relatively strong industry competitiveness. This established, capital-intensive industry structure is also supported by substantial investment in production machinery, raw metals, and manufacturing technology (Faeni et al., 2025). These characteristics indicate that the cable industry has an operational complexity and a cost structure that is sensitive to fluctuations in raw material prices, making the management of intra-group transactions a relevant aspect for analysis.

The cable industry generally operates within a business group structure involving several entities under a single control. Such structure encourages transactions among companies within the group, including asset sales, service provision, fund transfers, and loan provisions. Related-party transactions are common in companies with strong ownership structures and may be influenced by controlling shareholders (Supatmi & Widawati, 2021). Literatures emphasize that intra-group transactions do not always take place under balanced market conditions and may create opportunities for tunneling practices that potentially harm non-controlling shareholders (Supatmi & Batubara, 2022). Other studies indicate that related party transactions may be utilized to influence financial reporting and investor perceptions (Dresti and Fau, 2021). Therefore, governance mechanisms and disclosure practices become important instruments in reducing the risk of conflicts of interest (Olivia et al., 2021). Another study shows that audit quality and disclosure levels are associated with the magnitude of related-party transactions (Felix and Hanna, 2020). Although disclosure regulations are already in place, variations in their implementation persist in practice (Dewi et al., 2024).

In the taxation context, affiliated transactions are closely related to transfer pricing practices and the risk of Base Erosion and Profit Shifting. The interaction of cross-border tax regimes and the dynamics of global business create opportunities for profit shifting through transfer pricing schemes (Rohmah & Romadhon, 2023). Transfer pricing is often viewed as an important mechanism for profit shifting that reduces companies' total tax payments (Suryantari & Mimba, 2022). Research in Indonesia has also linked transfer pricing with tax avoidance practices (Pramita & Susanti, 2023), while cross-country studies show that trade openness and foreign investment flows are associated with the risk of tax revenue erosion through transfer pricing mechanisms (Listikarini, 2024). The dynamics of global competition also indicate market concentration among major players with international networks (Bongnell & Svenning, 2024).

Differences in regulatory standards and tax rates across countries also influence variations in transfer pricing practices within multinational group structures (Judijanto, 2025). On the other hand, the limited availability of external comparables often becomes a constraint in the application of reliable comparable methods (Elias and Ramananda, 2025). Global studies also show that companies may use transfer pricing to maintain profit stability and reduce volatility in financial performance (Apriani, 2025), indicating that the motives for internal pricing extend beyond taxation to include earnings management and corporate strategy.

In response to this complexity, the Government of Indonesia issued the Minister of Finance Regulation Number 172 of 2023, which reinforces the application of the Arm's Length Principle and emphasizes comparability analysis based on economic substance in line with the OECD Transfer Pricing Guidelines. While this regulatory framework provides a structured basis for transfer pricing analysis, prior studies predominantly focus on methodological discussions and general applications across industries. Several studies highlight the importance of method selection and FAR analysis in ensuring reliable arm's length outcomes (Muravskyi, 2023; Ikhwanudin & Rahayu, 2025), while others examine the application of OECD methods in multinational contexts (Plesner Rossing et al., 2017). However, these studies provide limited firm-level empirical evidence within specific industry settings. More specifically, there remains a lack of empirical research that evaluates arm's length profitability using cross-country independent comparables within a single industry while explicitly linking OECD-based analytical procedures with Indonesia's regulatory framework.

Based on this gap, this study focuses on assessing arm's length profitability in the cable industry by comparing Indonesian listed companies with independent foreign comparables using a consistent TNMM-based framework. The contribution of this study lies not in providing a general examination of transfer pricing practices, but in delivering a sector-specific empirical evaluation of profitability positions within a capital-intensive industry context. By applying cross-country comparability within a unified analytical structure, this study distinguishes between regulatory exposition, sectoral application, and empirical assessment. More importantly, it offers an original analytical insight by demonstrating how profitability outcomes vary across firms and periods and how these variations are influenced by differences in cost structures, production characteristics, and market dynamics. This approach highlights that arm's length assessment based on profitability requires contextual interpretation beyond mechanical comparability testing, while remaining aligned with the study's evaluative design and empirical scope.

Literature Review

Agency Theory

Agency theory explains the contractual relationship between a company's owner, as the principal, and its management, as the agent, in which the owner delegates the managerial authority to the management to conduct business activities (Panda & Leepsa, 2017). In this relationship, the management controls operational information and company resources, while the owner relies on reports and managerial decisions to achieve long-term economic objectives. Differences in interests and information asymmetry may give rise to agency problems because the owner cannot fully observe management's actions (Gottschalk, 2017;Jensen & Meckling, 2019). This condition creates opportunities for moral hazard, which may generate agency costs in the form of monitoring costs, contractual bonding, and residual losses resulting from decisions that are not aligned with the owners' interests (Karanović et al., 2023; Abdulqadir & Ismael, 2024). Therefore, corporate governance, internal controls, and transparency in reporting become important instruments for reducing the risk of conflicts of interest within modern organizational structures.

In the context of business groups, the complexity of agency relationships increases due to the presence of controlling shareholders and subsidiaries within extensive ownership networks. Conflicts arise not only between owners and managers, but also between controlling and non-controlling shareholders through related-party transactions (Ryu & Chae, 2022). The literature indicates that affiliated transactions can be used to transfer resources or profits among entities within a group and are therefore often perceived negatively by the market (Nekhili et al., 2021). In addition, information asymmetry regarding cost structures and market conditions creates opportunities for management to influence internal pricing policies that are difficult to verify (Andreu et al., 2023). Contract design and limitations on decision-making authority serve as mechanisms to restrict such discretion (Cai et al., 2023;Wang et al., 2018). Thus, agency theory provides a

relevant theoretical foundation for explaining the dynamics of pricing in affiliated transactions and transfer pricing practices within corporate group structures.

Regulatory and Conceptual Framework of Transfer Pricing

The regulatory and conceptual framework of transfer pricing in this study is developed through the integration of the OECD Transfer Pricing Guidelines and the Minister of Finance Regulation Number 172 of 2023. The OECD bases the arm's length principle on the primary principle of assessing the fairness of prices or profits in affiliated transactions, requiring that such transactions be treated as if they were conducted by independent parties under comparable conditions (OECD, 2022). This approach is based on the separate entity approach, which treats each entity within a group as an independent taxpayer. The OECD also outlines systematic stages of analysis, beginning with the identification of related party transactions, followed by an analysis of functions, assets, and risks (FAR), the selection of the most appropriate method, and comparability testing using independent comparables. The application of the arm's length principle may result in an arm's length range, which reflects variations in market conditions and limitations in comparable data.

At the national level, the Minister of Finance Regulation Number 172 of 2023 adopts the arm's length principle as the legal basis for supervising affiliated transactions, emphasizing the importance of adequate comparability analysis and the selection of methods that correspond to the economic substance of the transaction. The regulation also expands the definition of related party relationships, making supervision more substantive and better adapted to the complexity of business group structures. The alignment between OECD standards and the national regulation indicates that Indonesia's transfer pricing framework does not stand on its own but rather represents a normative elaboration of international standards. The integration of both provides a consistent theoretical, methodological, and juridical foundation for the analysis of arm's length conditions in this study.

Previous Study

Previous studies indicate that methodological issues in transfer pricing constitute a primary focus in the development of arm's length analysis practices. Muravskyi (2023) systematically examines various methodological tools in transfer pricing analysis, including traditional transaction methods and transactional profit methods, and emphasizes that the selection of methods should align with the characteristics of the transaction, as well as the functions, assets, and risks involved. Ikhwanudin & Rahayu (2025) emphasize that the consistency in applying the arm's length principle across jurisdictions largely depends on the appropriateness of the method selected in the context of the corresponding adjustment. Muzychuk & Fomina (2021) reinforce this argument by demonstrating that the quality of the analysis of functions, assets, and risks (FAR) influences both the selection of methods and the identification of appropriate comparables. Overall, these studies emphasize the importance of a systematic methodological approach in determining the arm's length nature of transfer prices.

Other studies highlight aspects of adjustments and evidentiary requirements in transfer pricing disputes as well as illustrative applications of the arm's length principle. Plesner Rossing et al. (2017) describe the application of the arm's length principle and the five main transfer pricing methods in the context of multinational enterprises and emphasize the preferred order of methods based on comparability levels. These findings provide a practical foundation for understanding how the arm's length principle is applied in international practice.

Although previous studies have discussed method selection, FAR analysis, comparability adjustments, and the application of the arm's length principle in multinational contexts, most studies still focus on conceptual approaches or general case studies, without comparing transfer pricing practices across specific industrial sectors characterized by high capital intensity and complex group structures. In addition, studies that explicitly compare the results of arm's-length analyses between domestic public companies and international comparables within a single homogeneous sector remain limited (Simanjuntak et al., 2025). This gap indicates the need for research that integrates methodological analysis with a cross-jurisdictional comparative approach in the cable industry, enabling the evaluation of arm's-length conditions in a more contextual and sector-specific manner.

Methods

This study employs a descriptive-comparative design to compare arm's length profitability outcomes of Indonesian cable companies with independent international comparables. The analysis focuses on differences in profitability positions measured using Return on Sales (ROS), rather than functional profiles or documentation practices. This approach evaluates how observed profitability aligns with arm's length conditions under a consistent analytical framework (Simajuntak et al., 2025). By applying uniform comparability criteria and cross-entity benchmarking, the design enables the identification of relative deviations from the arm's length range and supports analytically valid conclusions rather than merely procedural descriptions. The study also adopts a guidance approach to structure the analytical steps in accordance with the OECD Transfer Pricing Guidelines and the Minister of Finance Regulation Number 172 of 2023.

The sample consists of seven cable companies listed on the Indonesia Stock Exchange, representing all firms that meet the data availability and disclosure criteria within the observation period. The selection therefore reflects a complete set of eligible firms rather than a partial sample. Inclusion criteria require audited financial statements, complete annual reports, and sufficient disclosure of related-party transactions to ensure data reliability. Firms were excluded only when these requirements were not met. Comparable companies were selected from the Orbis/Osiris (Oriana) database through staged screening based on industry classification, similarity of business activities, and data availability, and were excluded if they did not meet independence criteria, had incomplete or inconsistent financial data, or lacked sufficient functional comparability.

The analysis was conducted sequentially, beginning with an assessment of industry conditions, followed by functional analysis (FAR), method selection, and evaluation of arm's length conditions. Profitability was assessed using ROS, calculated as operating profit divided by sales, and compared against the arm's length range of independent comparable companies. The results were interpreted descriptively to evaluate whether observed profitability positions are consistent with the arm's length principle.

Result and Discussion

Functional Profile of the Industry and Its Implications for Arm's Length Testing

The analysis of functions, assets, and risks indicates that the tested cable companies primarily function as manufacturing entities that produce and control the quality of , final products within a business group structure.

Table 1. Summary of the Evaluation of Transfer Pricing Determination Methods

Method	Legal Basis	Research Suitability Evaluation
Comparable Uncontrolled Price (CUP)	Article 9, paragraph (3) of the Minister of Finance Regulation No. 172 of 2023	Not used because no available independent comparable price data that are truly comparable in terms of product specifications, volume, and commercial terms.
Resale Price Method (RPM)	Article 9, paragraph (4) of the Minister of Finance Regulation No. 172 of 2023	Not relevant because the tested company functions as a manufacturer, not as a distributor without significant value added.
Cost Plus Method (CPM)	Article 9, paragraph (5) of the Minister of Finance Regulation No. 172 of 2023	Not selected because differences in cost structures and accounting treatments among companies reduce the comparability of gross margins.
Profit Split Method (PSM)	Article 9, paragraph (6) of the Minister of Finance Regulation No. 172 of 2023	Not appropriate because the transaction does not involve unique intangible assets or a high level of economic integration requiring the allocation of residual profits.
Transactional Net Margin Method (TNMM)	Article 9, paragraph (7) of the Minister of Finance Regulation No. 172 of 2023	Selected because it is most consistent with the profile of a contract manufacturer and allows more reliable testing of net profit based on independent comparable data.

Source: Compiled by the Author (2026)factory assets

Table 2. Comparable Company Names

No	Company Name	Country
1.	Henan Tong-Da Cable Co., Ltd.	China
2.	Seoul Electric Wire Co., Ltd	Republic of Korea
3.	Pamukkale Kablo Sanayi Ve Ticaret Anonim Sirketi	Turkey
4.	Gloster Cables Limited	India
5.	Recomm Co Ltd	Japan
6.	Hyesung C & C Inc	Republic of Korea
7.	Famous Co., Ltd	Republic of Korea
8.	Thai Copper Corporation Co., Ltd.	Thailand

Source: Processed from ORBIS

The companies use tangible such as production machinery, facilities, and raw material inventories, as the dominant factors of production. In contrast, ownership of strategic intangible assets such as global brands or unique technologies is not identified as the main source of value creation. The risks borne primarily include operational risks, fluctuations in raw material prices, and production capacity risks. In contrast, strategic risks such as market development, brand management, and control over intangible assets reside at the level of the controlling entities within the group. This configuration positions the tested companies as manufacturing entities with limited functions, or contract manufacturers, within the value chain.

This classification has implications for the type of profit tested in the transfer pricing analysis. Within the framework of the OECD Transfer Pricing Guidelines and the Minister of Finance Regulation Number 172 of 2023, entities with routine functions and limited risk profiles are generally expected to earn routine profits commensurate with their functional contributions. Residual profits arising from the ownership of unique intangible assets or the assumption of strategic risks should be allocated to the entities that actually control and bear those risks. Accordingly, the arm's length testing in this study focuses on routine profits reflected in the level of operational profitability, rather than on the overall group profit that may reflect the contribution of strategic functions in other jurisdictions.

Based on these considerations, the profit tested in this study is the routine operating profit that is relevant to the company's economic profile as a contract manufacturer. This approach ensures that the arm's length analysis is conducted consistently with the principle of comparability and reflects the actual contribution to value creation, so that the testing results provide an objective overview of compliance with the arm's length principle.

Determination of the Method and Testing Indicator

The determination of the most appropriate method was carried out through a systematic evaluation of all transfer pricing methods recognized in the OECD Transfer Pricing Guidelines and Article 9 of the Minister of Finance Regulation Number 172 of 2023. This evaluation considers the characteristics of cable sales transactions, the results of analyses of functions, assets, and risks, and the availability of reliable comparable data. The primary objective of this stage is in accordance with the most appropriate method principle, as summarized in Table 1.

The evaluation results indicate that price-based methods such as the CUP cannot be applied reliably due to the limited availability of truly comparable data within the cable industry. This industry exhibits high variation in technical specifications, project contracts, and production volumes, making comparability adjustments at the price level difficult to measure objectively. The RPM and PSM methods are also conceptually unsuitable for the tested entity's functional profile, as the company does not operate as a pure distributor and does not control unique intangible assets that generate residual profits. The CPM method is theoretically related to manufacturing functions; however, differences in the cost classification across jurisdictions reduce the reliability of gross margin comparisons.

The TNMM appears to be a suitable method because testing is conducted at the net profit-to-sales level. This approach is generally more tolerant of minor differences in product specifications and variations in cost structures that are not material to overall operational performance. In the context of entities with limited functions and routine risk profiles, testing net profit is considered to provide a reasonable basis for reflecting operational contributions. Accordingly, the use of TNMM in this study represents a reasonable methodological choice given the characteristics of the data and the level of comparability that can be achieved, rather than a definitive demonstration of methodological superiority.

After the method was determined, the next stage was selecting a Profit Level Indicator (PLI). Given the cable industry's focus on production volume and the sale of tangible goods, the Return on Sales (ROS) indicator is considered an appropriate indicator. ROS measures operating profit relative to net sales, thereby reflecting operational efficiency in a manufacturing industry that is sensitive to fluctuations in raw material prices. Compared with asset-based or cost-based indicators, ROS is relatively more stable across jurisdictions due to differences in accounting classifications and is supported by adequate, independent, and comparable data.

Table 3.Interquartile Range of ROS of Comparable Companies and ROS of the Tested Companies

Interquartile Range of Comparable Companies	2022	2023	2024
Minimum	-11.92%	-9.39%	1.00%
Lower Quartile (Q1)	2.56%	1.50%	1.80%
Median (Q2)	3.39%	3.43%	2.65%
Upper Quartile (Q3)	4.65%	4.30%	4.13%
Maximum	11.35%	20.97%	39.75%
ROS of the Tested Companies			
Jembo Cable Company Tbk PT	4.03%	4.93%	3.33%
KMI Wire and Cable Tbk PT	3.44%	5.65%	8.04%
Sumi Indo Kabel Tbk PT	2.31%	4.33%	3.04%
Kabelindo Murni Tbk PT	1.83%	2.84%	5.08%
Supreme Cable Manufacturing & Commerce Tbk PT	1.89%	4.23%	4.96%
Tembaga Mulia Semanan Tbk PT	1.28%	1.53%	1.63%
Voksel Electric Tbk PT	-3.90%	4.36%	1.59%
Communication Cable Systems Indonesia Tbk PT	11.74%	-4.74%	4.93%

Source: Compiled by the Author

In addition, this study employed a multi-year data approach to establish the arm's length range, thereby enhancing the reliability of the analysis. Using data from multiple periods reduces distortions caused by temporary fluctuations, business cycles, or short-term market conditions. This approach is consistent with the ex ante principle in Article 4 paragraph (1)(b) of the Minister of Finance Regulation No. 172 of 2023, in which the arm's length analysis is based on information that is available and reasonably predictable at the time the transaction occurs. Considering data availability and the need for analytical consistency, this study used financial data from comparable companies for the period 2018 to 2022 as the basis for comparison in the transfer pricing arm's-length test.

Selection of Comparables and Establishment of the Arm's Length Range

The selection of comparable companies was conducted using the ORBIS database through the TP Catalyst Pro platform, which provides standardized financial information across jurisdictions. The selection process was designed to ensure that the comparable companies possess business characteristics and functional profiles comparable to those of the tested entity, in accordance with the comparability principle in the OECD Transfer Pricing Guidelines and the Minister of Finance Regulation Number 172 of 2023.

The main criteria used in the screening process included several substantive aspects to ensure an adequate level of comparability. The selected companies must be active so that their financial data reflects current business conditions. In addition, the industry classification was limited to NACE Rev.2 code 273, which covers activities related to the manufacture of wiring and cables, to ensure similarity in product characteristics and manufacturing activities. The selection process also required sufficient financial statements for the calculation of profit-level indicators, enabling consistent, verifiable analysis. Finally, the BvD independence indicator, with categories A+, A, and A−, was applied to ensure that comparable companies do not have related party relationships and that their transactions are genuinely independent, in accordance with the arm's-length principle.

From an initial population of millions of entities within the scope of the global industry, the staged screening process resulted in 10 companies that met all primary criteria. After further review of the completeness and consistency of the financial data, 2 companies were eliminated due to limitations in the available information. Thus, the final number of comparable companies used in the analysis is 8 independent companies that possess operational characteristics comparable to those of the tested cable companies, as presented in Table 2.

The arm's length range was established using the interquartile range (IQR) method based on the Return on Sales (ROS) indicator. This approach was applied to obtain a profit range that more stably represents independent market practices by minimizing the influence of extreme values. The use of multi-year data in constructing the range aims to enhance the reliability of the estimate and reduce distortions caused by temporary fluctuations.

Analysis of Results and Determination of Arm's Length Conditions

This section presents the results of testing the arm's-length nature of the tested cable companies' profit levels by comparing their Return on Sales (ROS) values with the interquartile range of independent comparable companies. The presentation is conducted comparatively over the period 2022–2024 to identify profitability patterns and the consistency of each company's position relative to the arm's length range, relative to the arm's length range (see Table 3).

Based on the interquartile range (IQR) analysis for 2022, the lower quartile was 2.56%, the median 3.39%, and the upper quartile 4.65%, representing the arm's-length range based on the Return on Sales (ROS) indicator. Jembo Cable Company Tbk PT (4.03%) and KMI Wire and Cable Tbk PT (3.44%) fall within this range, indicating that their profitability is broadly consistent with independent comparables. However, this result should be interpreted cautiously, as it is based on profitability comparisons and subject to assumptions on comparability, functional simplifications, and data limitations.

Meanwhile, Sumi Indo Kabel Tbk PT (2.31%), Kabelindo Murni Tbk PT (1.83%), Supreme Cable Manufacturing & Commerce Tbk PT (1.89%), Tembaga Mulia Semanan Tbk PT (1.28%), and Voksel Electric Tbk PT (-3.90%) have ROS values below the lower quartile, indicating lower profitability relative to the comparable range. On the other hand, Communication Cable Systems Indonesia Tbk PT recorded an ROS of 11.74%, which is above the upper quartile and exceeds the maximum value of the comparable companies, indicating an unusually high profitability level during that period.

In 2023, the interquartile range shows a lower quartile of 1.50%, a median of 3.43%, and an upper quartile of 4.30%. Jembo Cable Company Tbk PT (4.93%), KMI Wire and Cable Tbk PT (5.65%), and Sumi Indo Kabel Tbk PT (4.33%) are above the upper quartile, while Supreme Cable Manufacturing & Commerce Tbk PT (4.23%) and Voksel Electric Tbk PT (4.36%) are close to the upper bound. These positions indicate relatively higher profitability compared to the comparable range and remain broadly consistent with observed market outcomes, although they should be interpreted cautiously given the limitations of comparability and profitability-based testing

Meanwhile, Kabelindo Murni Tbk PT (2.84%) and Tembaga Mulia Semanan Tbk PT (1.53%) remain within the interquartile

range but below the median, indicating relatively lower profitability compared to the central tendency of comparable companies. In contrast, Communication Cable Systems Indonesia Tbk PT recorded an ROS of -4.74%, which is below the lower quartile, indicating significantly lower profitability during that period. As noted by Suryana (2021), positions outside the interquartile range may reflect differences in economic conditions, cost structures, or business strategies, and therefore require further contextual analysis.

Furthermore, based on the analysis for 2024, the interquartile range shows a lower quartile of 1.80%, a median of 2.65%, and an upper quartile of 4.13%. Jembo Cable Company Tbk PT (3.33%) and Sumi Indo Kabel Tbk PT (3.04%) fall within the interquartile range, indicating relatively comparable profitability levels. KMI Wire and Cable Tbk PT (8.04%), Kabelindo Murni Tbk PT (5.08%), Supreme Cable Manufacturing & Commerce Tbk PT (4.96%), and Communication Cable Systems Indonesia Tbk PT (4.93%) are positioned above the upper quartile, while Tembaga Mulia Semanan Tbk PT (1.63%) and Voksel Electric Tbk PT (1.59%) remain below the lower quartile.

The variation in ROS positions across 2022–2024 indicates that profitability outcomes are not fully stable over time. Several companies shift between below-range, within-range, and above-range positions across periods. This pattern suggests that the arm's length assessment should not rely solely on a single-year observation. In the cable industry, profitability is influenced by fluctuations in raw material prices, particularly copper and aluminum, as well as variations in production capacity utilization and the timing of project-based revenues. As a result, year-to-year changes in ROS may reflect normal operational dynamics rather than systematic transfer pricing behavior.

In addition, deviations above and below the interquartile range should not be interpreted symmetrically. Profitability below the lower quartile may indicate potential cost inefficiencies, operational constraints, or pricing outcomes that require further examination. However, profitability above the upper quartile does not necessarily indicate non-compliance with the arm's length principle. Higher margins may arise from firm-specific advantages such as operational efficiency, favorable contract structures, or temporary market conditions. Therefore, upward deviations should be interpreted with caution and evaluated within their specific business context.

These findings also indicate that the arm's length assessment should not rely solely on a mechanical comparison of ROS values. In a capital-intensive industry such as cable manufacturing, profitability is affected by differences in cost structures, exposure to input price volatility, production efficiency, and contractual arrangements within business groups. Consequently, the interpretation of ROS positions should consider these economic factors to ensure that the analysis reflects actual business conditions rather than purely statistical thresholds.

Overall, the testing results during the 2022–2024 period indicate that variations in profitability are likely influenced by operational and market dynamics. The application of the Transactional Net Margin Method (TNMM) with the Return on Sales (ROS) indicator provides an evaluative basis for comparing profitability positions under a consistent analytical framework. However, these results should be interpreted as indicative rather than definitive, as they reflect arm's-length benchmarks under stated assumptions and do not constitute a formal assessment of transfer pricing compliance.

Limitations and Cautions

This study has several limitations that should be considered when interpreting the results. First, the analysis is conducted using a generalized approach to the cable industry as a single sector; therefore, the analysis of functions, assets, and risks (FAR) does not specifically reflect differences in the operational profiles of each company, and the classification as a contract manufacturer is applied on an aggregate basis. Second, arm's length testing is performed at the company-wide level without separating specific types of related party transactions in detail, so the results reflect the arm's length nature of aggregate profitability rather than each individual transaction. Third, limitations in the availability and quality of comparable data mean that the characteristics of comparable companies are not entirely identical to those of the tested companies, so the interquartile range used as a difference may influence the arm's-length benchmark in different business conditions and economic environments. Therefore, the findings of this study are analytical and not intended to replace a more specific transfer pricing evaluation in the context of a tax audit.

Conclusion

Based on the application of the Transactional Net Margin Method (TNMM) using the Return on Sales (ROS) indicator, this study analytically indicates that the profitability positions of Indonesian cable companies in affiliated transactions vary across companies and over time. The evaluation, conducted through comparison with the interquartile range (IQR) of independent comparable companies, provides an empirical basis for assessing whether observed profit levels fall within a range consistent with arm's length conditions.

The results show that several companies are positioned within the interquartile range in certain periods, while others fall below or above the range. The summary of these positions is presented below, which provides a comparative overview of each company's profitability relative to the interquartile range across periods. From an analytical perspective, these positions indicate differences in profitability relative to independent market benchmarks. However, these findings should be interpreted as indicative rather than definitive evidence of compliance or non-compliance with the arm's length principle, as the analysis is based on a comparative profitability framework rather than a full transactional audit. However, these findings should be interpreted as indicative rather than definitive evidence of compliance or non-compliance with the arm's length principle, as the analysis is based on a comparative profitability framework rather than a full transactional audit. A summary of the companies' profitability positions relative to the interquartile range (IQR) for the period

Table 4. Summary of ROS Positions Relative to the Interquartile Range (2022–2024)

Company Name	2022	2023	2024
Jembo Cable Company Tbk PT	IQR	>Q3	IQR
KMI Wire and Cable Tbk PT	IQR	>Q3	>Q3
Sumi Indo Kabel Tbk PT	<Q1	>Q3	IQR
Kabelindo Murni Tbk PT	<Q1	IQR	>Q3
Supreme Cable Manufacturing & Commerce Tbk PT	<Q1	IQR	>Q3
Tembaga Mulia Semanan Tbk PT	<Q1	IQR	<Q1
Voksel Electric Tbk PT	<Q1	>Q3	<Q1
Communication Cable Systems Indonesia Tbk PT	>Q3	<Q1	>Q3

Source: Compiled by the Author (2026)

2022–2024 is presented in Table 4.

From a methodological standpoint, this study suggests that the use of TNMM with the ROS indicator provides a structured approach for evaluating profitability in a capital-intensive industry. The interquartile range enables comparative assessment across companies and periods, facilitating the identification of relative deviations from market-based outcomes. However, this approach represents an evaluative framework rather than a comprehensive transfer pricing assessment based on detailed transactional analysis.

The findings remain conditional due to limitations in data availability and comparability, including differences in cost structures and operational conditions. Accordingly, the results should be interpreted cautiously and should not be considered a definitive judgment of tax compliance. Overall, this study provides an analytical perspective on arm's length testing while emphasizing the need for contextual interpretation of profitability outcomes.

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