Transfer pricing practices in multinational corporations and their effects on developing countries’ tax revenue: a systematic literature review

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Abstract
Purpose – For many global firms and corporate oligopolies, transfer pricing is essential. The transfer pricing literature as it is currently written is succinctly summarized in this study. The authors offer a thorough analysis of transfer pricing research in this study. This review sheds light on the top researchers, approaches, conclusions, theoretical and empirical gaps, and upcoming issues of transfer pricing research over the previous nine years through a methodical analysis of 29 research publications from the Scopus database (2014–2022). To help graduate students pursue further degrees in this area, such as a master’s, thesis or PhD, this study will highlight five research issues.

Design/methodology/approach – This essay looks at five significant areas of tax avoidance and transfer pricing research. Some of these issues include determining the impact of transfer pricing regulations on various types of multinational corporations, assessing the effectiveness of transfer pricing regulations in preventing tax evasion, examining various policy options and determining the impact of transfer pricing on other economic outcomes using a systematic literature review.

Findings – The findings of this review demonstrate the need for transfer pricing research to look more closely at transfer pricing as a tool for business in addition to compliance and tax management.

Originality/value – This analysis concludes with future directions for transfer pricing research.

Keywords Transfer pricing, Multinational corporations, Tax avoidance, Compliance, Tax management, Policy options

Paper type Literature review

Introduction
Transfer pricing, the process of pricing transactions between and within businesses with similar ownership and control, has drawn much attention recently because of its implications for the economy, functions and organizations (Kumar et al., 2021). Transfer pricing is a complex concept determining prices for goods and services exchanged between related entities, particularly subsidiaries of multinational corporations (MNCs). It involves setting the prices for these transactions, which can impact the allocation of profits and tax liabilities across different jurisdictions.
To clarify and ensure a common understanding, it is important to define two fundamental terms: transfer pricing and the arm’s length principle. The arm’s length principle serves as a guiding principle in transfer pricing. It suggests that the prices used in intercompany transactions should be comparable to those that would have been agreed upon between unrelated parties under similar circumstances. In other words, transfer prices should be set as if the entities involved were independent and dealing at arm’s length.

Transfer pricing can, however, also be employed for dishonest and unlawful goals, such as tax avoidance through the deliberate manipulation of transfer prices, including over- and under-invoicing in transfer pricing transactions. To make sure that transfer costs paid by firms are equivalent to those between unrelated businesses, governments rely mainly on “arm’s length pricing” (Kumar et al., 2021). For politicians and researchers, the effect of transfer pricing on tax revenues—particularly in developing countries—has emerged as a critical concern. Multinational corporations (MNCs) have been charged with tax-motivated profit shifting, which is said to erode tax bases and lower tax collections for developing countries (IMF Working Paper, 2019). In order to combat income shifting from high-tax to low-tax jurisdictions, which results in double non-taxation or even under-taxation, ideas for fundamental adjustments in the international tax system have been made (Büttner and Thiemann, 2017). Concerns about illicit financial transfers made possible by transfer pricing because of kleptocracy, corruption, state espionage and organized crime have also been raised. Global attention has also been drawn to the use of tax havens by multinational firms to decrease corporate tax liabilities significantly. As a response, some countries have passed specific legislation to address the possibility of tax avoidance through tax havens (Richardson and Taylor, 2015). Although the arm’s length principle, which states that transfer prices between linked enterprises must be the same as if they were unrelated, has been generally accepted to prevent double taxation and minimize tax revenue losses (Marques and Pinho, 2016), the latitude provided by transfer pricing rules has allowed businesses to choose transfer pricing techniques that encourage the use of internal prices, which has led to the movement of profits from high-tax to low-tax nations (Davies et al., 2017). Tax auditors find auditing instances involving transfer pricing challenging since multinational businesses usually disclose little information regarding these procedures. This is especially true for situations involving intangible assets (Muhammad et al., 2016). Corporate tax bases and rivalry with domestic businesses are strongly impacted by profit shifting by multinational corporations (MNCs) utilizing strategies including intra-group loans, where intangibles are located and manipulation of transfer prices (Vicard, 2015). The use of transfer pricing by multinational corporations (MNCs) has generated much discussion and interest in academia. Transfer pricing sets prices for goods, services and intellectual property inside multinational organizations, particularly when the manufacturing plant is overseas and requires both a sourcing and transfer-pricing decision (Shunko et al., 2014). Because multinational corporations frequently use their size and complexity to manipulate internal transfer prices and move profits from high-tax to low-tax jurisdictions, lowering their overall tax liability, the choice of transfer prices can significantly impact the tax revenues of developing countries (Choi et al., 2020).

In academic research, the detrimental impacts of transfer pricing methods on tax revenues in poor nations are well established. For instance, Ghana lost a significant amount of tax revenue to multinational corporations (MNCs), depriving the country of resources necessary for economic progress. Nigeria has experienced difficulties with revenue generation and its debt profile despite having abundant natural and human resources, particularly since the drop in crude oil prices. Transfer pricing procedures have also been connected to other forms of tax evasion, such as corporate inversions, in which multinational businesses move their home corporations to foreign nations to benefit from lower tax rates and access money acquired abroad tax-free. These actions cast doubt on the fairness and effectiveness of the
global tax system and highlight the need for steps to combat the aggressive tax avoidance strategies used by multinational firms.

Additionally, the issue of tax income collection for developing nations, which historically relied on taxing big formal businesses, is threatened by multinational corporations’ manipulation of transfer pricing (Wier, 2020). For developing countries, this creates challenges for resource mobilization and economic expansion. A thorough literature review is increasingly required to summarize the existing research in this area. Due to the possible loss of tax revenue and the detrimental effects on economic development, the topic of transfer pricing practices and their effect on tax collections in developing nations has garnered much attention. An increasing worry is the eroding of tax bases and declines in tax collections in developing countries due to claims that multinational businesses engage in tax-motivated profit shifting (IMF Working Paper, 2019).

Additionally, multinational firms’ use of tax havens to decrease their corporate tax duties has drawn attention from around the world and led to particular legislation in some countries to address potential tax avoidance (Richardson and Taylor, 2015). The arm’s length principle has drawn criticism for its adaptability and potential for profit shifting despite being largely acknowledged as a way to eliminate double taxation and prevent tax revenue losses (Marques and Pinho, 2016; Davies et al., 2017). Auditing transfer pricing cases involving intangible assets presents additional challenges for tax auditors since multinational firms usually require more details about their transfer pricing procedures (Muhammad et al., 2016). Corporate tax bases and rivalry with domestic businesses are strongly impacted by profit shifting by multinational organizations utilizing strategies including intra-group loans, where intangibles are located and manipulation of transfer prices (Vicard, 2015).

The effects of transfer pricing methods on tax receipts in developing nations have been extensively studied in the literature. According to studies, nations like Ghana and Nigeria lost significant tax money to multinational firms, depriving them of funds for economic development. Here are some specific instances highlighting the differences between policies followed by developing countries and multinational corporations (MNCs) in developed nations. For instance, if a company delays its international expansion in developing countries, it may need to seek support from host governments for some of its operations. This need for support could outweigh any sacrifice of strategic independence. This situation was commonly observed in Japanese investments abroad, where Japanese companies aimed to establish a presence in new markets quickly. In such cases, when Toshiba, Hitachi and Matsushita set up component plants in Malaysia to cater to developed markets, they insisted on full ownership. Plants responsible for sourcing, which were crucial for domestic production, were typically 100% owned by Japanese companies, while plants producing end products for local markets were often joint ventures with local partners (Doz and Prahalad, 1980).

However, sacrificing strategic independence always comes with a cost. Over time, it becomes challenging for an MNC to effectively respond to global competition because it tends to bind managers to view each national market in isolation. For example, Brown Boveri, the Swiss electrical giant, faced difficulties developing and implementing a consistent multinational strategy among its subsidiaries when its electric motor business encountered fierce price competition from companies in the Far East and Eastern Europe. Since most national utilities that purchased electric equipment required independent management of their respective subsidiaries, the administrative procedures and the mindset of general managers needed to be aligned with coordinating a multinational response (Doz and Prahalad, 1980).

Additionally, transfer pricing methods have been connected to other tax evasion strategies, like business inversions, raising questions about the fairness and effectiveness of the global tax system. The impact of manipulating transfer pricing on the competitiveness of
businesses and the economy is significant. According to Team (2022), the competitiveness of businesses can be affected by transfer pricing manipulation, which we will examine through the lens of the Porter Diamond Model. The Porter Diamond Model is a framework that highlights the competitive advantage of an industry or business, enabling it to outperform its competitors within a specific region or country. It is also referred to as the Porter Diamond Theory of National Advantage and explains the success of certain industries in particular nations. Companies utilize this model to analyze the competitive landscape of foreign markets before entering them. Let us consider the following example within the context of the Porter Diamond Model: Germany’s car manufacturing industry is an excellent example to illustrate this. This sector excels in all the attributes outlined in the model, enabling it to thrive amidst global challenges. With numerous competitors in the domestic market, car manufacturers consistently innovate and achieve excellence, resulting in the production of top-notch car models.

Germany’s economy benefits from factors contributing to its competitive advantage in the car manufacturing industry. For instance, the absence of speed limits and the aspiration of citizens to lead a high-quality and fast-paced lifestyle foster a demand for high-speed luxury cars within the nation. Additionally, the availability of skilled resources, such as car engineers from internationally recognized German universities, gives German car manufacturers an edge over their counterparts. Therefore, the demand and factor conditions outlined in the Porter Diamond Model are effectively met. Furthermore, the strong support from the metal industries, which provide high-quality spare parts to car manufacturers, is a robust support system for the national market. The German government’s commitment to providing superior infrastructure and educational institutions also creates a national competitive advantage for the car industry.

Multinational firms’ manipulation of transfer pricing influences tax collections in poor countries and casts questions on the general fairness and effectiveness of the global tax system. Given the significance of this subject, it is imperative to conduct a systematic literature review to summarize the body of knowledge already available and present a thorough analysis of transfer pricing methods in multinational firms and their effects on tax collections in developing nations. By addressing the research questions raised above and offering policy implications and suggestions for developing countries to reduce the detrimental effects of transfer pricing techniques on their tax revenues, this study seeks to fill this gap. Multinational firms’ transfer pricing procedures substantially impact the tax collections of developing nations. Transfer pricing instances highlight the need for greater study and legislative changes in this area by potentially reducing tax income, eroding tax bases and complicating audits. Through a thorough literature analysis, this paper aims to advance an understanding of multinational firms’ transfer pricing methods and how they affect tax collections in developing nations.

The following are the research interests of the study:

1. What are the various transfer pricing practices utilized by multinational corporations, and how do they affect tax revenues in developing nations?
2. What difficulties do developing nations face when confronting the transfer pricing practices of multinational corporations and implementing effective reforms?
3. What policy implications and recommendations are there for developing nations to mitigate the adverse effects of transfer pricing on tax revenues?
4. What measures have been proposed or implemented to resolve the challenges of transfer pricing practices in multinational corporations and what are their efficacy and limitations?
This paper aims to provide a systematic literature review of the transfer pricing practices used by multinational corporations and how they affect developing countries’ tax revenues. It also aims to help policymakers, tax professionals and scholars better understand this issue to address the problems brought on by these practices, particularly in developing countries.

Literature review

Transfer pricing is crucial for multinational corporations (MNCs) and tax authorities. This literature review combines data from twenty-nine studies that examined different facets of transfer pricing, including its effects on investment and tax avoidance by multinational corporations (MNCs), the difficulties tax auditors encounter when auditing cases involving transfer pricing and the ideal degree of manipulation of transfer pricing. The report also emphasizes the need for more accounting transaction openness and the potential risks and restrictions of transparency measures to enhance compliance with transfer pricing regulations.

De Mooij and Liu (2020) investigate how transfer pricing regulations (TPRs) affect real investment by multinational enterprises (MNCs). They conclude that the unilateral adoption of TPRs may harm MNCs’ ability to invest effectively and underline the necessity for coordinated global efforts to stop MNCs from shifting profits for tax reasons. In their study of the OECD/G20 Base Erosion and Profit Shifting process, Büttner and Thiemann (2017) contend that gradual changes to transfer pricing principles add to the standards’ complexity and incoherence, leading to an increase in conflicting assessments and ambiguity.

Illicit financial flows (IFFs) and the challenges associated with characterizing and quantifying them are examined. According to the study, combining legal and illegal behavior under a single description leads to a loss of clarity and the possibility of confusion. The research also looks at trade misinvoicing numbers and makes the case that they only sometimes point to illegal money movements. The revenue-shifting incentives of multinational U.S. firms using tax havens are studied by Richardson and Taylor (2015). The study discovers that employing tax havens positively correlates with multinationalism, aggressive transfer pricing, thin capitalization and intangible assets. These findings greatly impact how tax authorities and lawmakers create efficient tax laws to stop income shifting.

Using French firm-level data, Davies et al. (2017) examined how intra-firm prices differed from arm’s-length prices. Their findings demonstrate that tax evasion and pricing to market are the driving forces behind transfer pricing. Muhammadi et al. (2016) examined Indonesian tax auditors’ difficulties while auditing transfer pricing cases involving intangible property rights. They concluded that tax auditors and lawmakers should learn more about transfer pricing regulations to overcome these issues.

Vicard (2015) provided empirical evidence of multinational firms transferring profits through transfer pricing and estimated that tax evasion reduced French tax collections by roughly 23bn euros yearly. In South Africa, a developing country, Wier (2020) provided evidence of profit shifting and calculated that the tax loss attributed to imported goods alone accounted for 0.5% of corporate tax payments. The effects of intangible assets, debt covenants, bonus programs, and tax penalties on the transfer pricing choices made by Indonesian manufacturing enterprises were examined by Pramono Sari et al. in 2022.

The appropriate level of transfer pricing manipulation and the impact of domestic taxes on foreign earnings on income-shifting incentives are examined by Rathke (2015). Amidu et al. (2019) investigate the connections between transfer pricing, profits management and tax evasion in multinational firms with operations in Ghana. Klassen et al. (2017) investigate the impact of internal transfer pricing priorities at multinational firms on tax outcomes. The state of transfer pricing research during the preceding 50 years is covered in the literature review of Kumar et al. (2021).
Multinational corporations (MNCs) and pure exporters can analyze how corporate taxes affect their export behavior using a methodology provided by Cristea and Nguyen (2016). They discover that multinational businesses can increase export prices to pass the cost of corporate taxes onto consumers while being less vulnerable to changes in corporate tax rates than pure exporters. Nguyen et al. (2020) look into the connection between FDI firms’ transfer pricing practices and the capability of Vietnam’s tax authorities.

Through deliberate intra-firm transfer pricing, Flanagan (2017) shows the profit-shifting behavior of American multinational firms. Chan et al. (2015) conducted a thorough analysis of the transfer pricing literature in China, focusing on the effects of transfer pricing on foreign firms operating in China. In order to pay less tax in developing countries, multinational businesses (MNEs) manipulate transfer pricing, according to Sebele-Mpofu et al. (2021).

A comprehensive methodology is provided by Gao and Zhao (2015) for figuring out the right transfer price for a global firm to optimize profitability. Jansk and Prats (2015) look into how tax havens affect the financial and ownership information of multinational businesses in India. Park et al. (2016) examine the connection between MNCs and tax evasion via their foreign subsidiaries. They conclude that multinational corporations (MNCs) with abroad operations are more likely to dodge taxes and use transfer pricing tactics intentionally. When Omar and Zolkaflil (2015) looked into the tax characteristics of multinational firms with subsidiaries in tax haven countries, they found that these corporations had lower reported earnings and paid less in taxes, which suggested a higher propensity for profit shifting. Shunko et al. (2014) investigate the make-or-buy choice in multinational companies with an overseas manufacturing plant and outline the best transfer pricing solutions that accomplish the dual goals of energizing divisional management and utilizing favorable tax rates at offshore locations.

The study’s literature can be effectively organized into six distinct and comprehensive themes.

**Theme 1: Impact of Transfer Pricing on Tax Revenues and Base Erosion**

Studies have examined how transfer pricing influences tax receipts and the tax base eroding (de Mooij and Liu, 2020; Vicard, 2015; Flanagan, 2017; Jansk and Prats, 2015; Carnahan, 2015). According to research, transfer pricing restrictions cause MNC affiliates to spend less, shift earnings to low-tax nations and underreport income, all of which harm tax collections and the tax base.

**Theme 2: Effect of Transfer Pricing on MNCs’ Behavior**

The effect of transfer pricing on MNCs’ behavior is examined in several studies (Marques and Pinho, 2016; Wier, 2020; Kumar et al., 2021; Gao and Zhao, 2015; Sebele-Mpofu et al., 2021). The findings show that tighter transfer pricing regulations affect the sensitivity of profits tax rates, MNCs manipulate transfer prices to shift taxable earnings and transfer price optimization can impact market share and competitive advantage.

**Theme 3: Relationship between Transfer Pricing and Tax Avoidance/Profit Shifting**

Sari et al. (2022), Amidu et al. (2019), Park et al. (2016), Büttner and Thiemann (2017) and Richardson and Taylor (2015), look at the connection between profit shifting or tax avoidance and transfer pricing. The results highlight tax-motivated transfer pricing, the influence of intangible assets, positive correlations between indices of profit-shifting and greater tax avoidance inclination among MNCs.

**Theme 4: Evaluation of Transfer Pricing Regulations and Policies**

The focus of (Davies et al., 2017; Liu et al., 2017; Choi et al., 2020; Oats and Tuck, 2019) is on assessing transfer pricing laws and procedures. Findings show the need for specific
definitions and knowledge of permissible corporate tax evasion, cheaper exports to tax havens, transfer mispricing to shift profits, potential effects of tax-driven FDI and cheaper exports to tax havens.

Theme 5: Methodologies and Approaches in Transfer Pricing Research

Omar and Zolkaflil (2015), Chan et al. (2015), Rathke (2015) and Nguyen et al. (2020) investigate research methods and strategies for transfer pricing. Findings emphasize problems with auditing transfer pricing for intangible property, theoretical analyses of manipulation and competition, the connection between the capability of the tax authority and transfer pricing, the presence of subsidiaries in tax havens, and transfer pricing auditing procedures.

Theme 6: Theoretical Analysis and Models in Transfer Pricing

Shunko et al. (2014) focuses on conceptual modeling and analysis. The findings cover the trade-off between the incentive function and the transfer price tax roll and the potential implications of border adjustments on tax collection and global commerce.

The studied studies indicate that transfer pricing is a complex subject that necessitates striking a balance between conflicting objectives, including tax reduction, adherence to transfer pricing regulations and profit maximization. The results also show that regulatory bodies must focus on enforcing adherence to transfer pricing regulations and preventing multinational businesses from moving profits. The report also underlines the importance of coordinated worldwide efforts to stop multinational corporations from transferring profits for tax purposes.

The papers under examination offer valuable insight into the complexities of transfer pricing and its consequences on financial investment, tax evasion and global tax revenue collection. The findings have important implications for tax authorities and policymakers in designing efficient tax laws to prevent income shifting, enhancing the ability of tax auditors and regulatory agencies to enforce transfer pricing laws and increasing the transparency of accounting transactions to encourage greater adherence to transfer pricing rules.

Methodology

We used a systematic literature review process to conduct our analysis, looking at 29 pieces of literature about transfer pricing and its impact on tax evasion. ScienceDirect, Springer, Jstor, Wiley, Taylor & Francis and other databases were used as our primary sources for these resources. We also ensured that we included pertinent publications from additional databases using Google Scholar. The papers were chosen via a search of these sources using the following criteria:

(1) Based on the titles and abstracts of relevant studies, we searched using keywords such as transfer pricing, tax avoidance, developing nations and profit shifting.

(2) The search did not include conference papers, master’s theses, or doctorate dissertations because academics and practitioners rarely use thesis kinds of publications to gather knowledge or disseminate discoveries.

(3) We considered peer-reviewed, published and pending journal articles with full-text English versions available.

(4) To ensure the data we analyzed was up-to-date, we restricted our analysis to studies written between 2014 and 2023.
(5) Only studies that directly addressed the issue of the study and made it simple to determine its relevance to the research topic were included.

(6) We only considered studies that offered conclusive answers to the study’s open-ended questions.

Findings
Transfer pricing refers to the complicated problem of determining the price of goods and services between linked parties, such as multinational corporation subsidiaries (MNC). Due to its ability to transfer earnings to low-tax jurisdictions and decrease tax revenue for nations where the actual economic activity happens, it has come under more and more scrutiny in recent years. We explain our findings of transfer pricing practices in multinational corporations and their effects on developing countries tax revenue below:

(1) Impact of Transfer Pricing Regulation: The effects of transfer pricing on investments, tax receipts and earnings management have been the subject of several studies. de Mooij and Liu (2020) claim that MNC affiliate investment is reduced by 11% due to transfer pricing laws. This demonstrates how crucial transfer pricing rules are to ensure nations get their fair share of tax revenue. According to Bogert et al., international efforts are being made to address transfer pricing issues without upsetting the global economy. This is supported by the OECD/G20 Base Erosion and Profit Shifting (BEPS) process, which modified the Transfer Pricing Guidelines to prevent a loss of authority without a politically risky complete overhaul. Richardson and Taylor (2015) discovered a strong correlation between multinationalism, aggressive transfer pricing, thin capitalization, intangible assets and the use of tax havens in publicly traded multinational U.S. corporations. This research highlights the need for more stringent transfer pricing restrictions to stop multinational corporations from abusing loopholes and diverting earnings to tax havens.

(2) Assessing the Effectiveness of Transfer Pricing Regulations: (Marques and Pinho, 2016) developed an index to gauge how stringent a nation’s transfer pricing framework is, and they discovered that stricter frameworks are linked to lower reported earnings’ sensitivity to tax rate differences. This shows that stricter transfer pricing regulations diminish the potential for earnings management. Interfirm prices for exports to tax haven countries are, on average, 11% lower than arm’s length prices, according to research by Davies et al. (2017). This suggests that MNCs might influence transfer pricing to move profits to countries with low tax rates. Intangible property audits by Indonesian tax auditors provide a number of difficulties, according to a study by Muhammadi et al. (2016), demonstrating the complexity and importance of transfer pricing issues.

(3) Examining Various Policy Options: According to Wier (2020), MNCs in South Africa manipulate transfer prices to transfer profits to low-tax nations, as emphasized by Vicard (2015). This causes a tax loss of 0.5 percent of corporation tax payments related to imported commodities alone. These results highlight the need for tighter transfer pricing restrictions to guarantee that nations receive their fair share of tax revenue. Intangible assets pose a difficulty for transfer pricing legislation and may call for specific remedies, according to Sari et al. (2022), who determined that tax charges could not alleviate the influence of intangible assets on transfer pricing decisions. Rathke (2015) emphasized that the arm’s length concept assumes a market-based range of acceptable prices, giving businesses additional latitude to manipulate transfer prices if the market range is broad or difficult to define. This emphasizes how
crucial it is to precisely define and keep an eye on the market range in order to prevent transfer pricing abuse.

4) Impact of Transfer Pricing on Other Economic Outcomes: According to Amidu et al. (2019), nearly all sample companies used transfer pricing strategies and earnings management to reduce their tax liabilities between 2008 and 2015. This finding emphasizes the need for tighter transfer pricing regulations and more effective enforcement to stop tax avoidance and guarantee that countries pay their fair share of taxes. Companies prioritizing tax reduction above tax compliance have a GAAP effective tax rate that is 6.6 percentage points lower and produces an average of $43mn more in tax savings, according to a study by Klassen et al. (2017). Transfer pricing is frequently used to minimize taxes. According to Kumar et al. (2021) the United States is the world leader in transfer pricing, followed by the United Kingdom and Australia. According to Alan J. Auerbach, border adjustments, which entail changing tax rates depending on the origin or destination of commodities, can significantly impact tax income and global trade (2016). According to Cristea and Nguyen, pure exporters are more sensitive to changes in corporate tax rates than multinational businesses (MNCs) (2016).

5) Additional Findings: Nguyen et al. (2020) contend that tax authorities’ ability may impact transfer pricing actions. According to Flaaen, MNCs frequently engage in profit-shifting behavior through transfer pricing, which causes underreported earnings and lost tax revenue for governments (2017). Large corporations with operations in several nations employ various strategies to modify their transfer prices to move their revenues to nations with lower tax rates. When examining tax-driven, three discoveries have been made by Liu et al. (2017) regarding transfer mispricing concerning physical products. For nations like Nigeria, where debt servicing negatively impacts infrastructure development, recent transfer pricing restrictions have caused difficulties, as Choi et al. (2020) stated. According to Liu et al., financial firms utilize more transfer pricing than non-financial enterprises, while non-financial MNCs manipulate earnings more than financial firms. Oats and Tuck (2019) highlighted the need for more study, which outlined the possible advantages and restrictions of current tax disclosure laws. Numerous research has illuminated multinational firms’ taxation procedures (MNCs). According to one of these studies, MNCs with connections to tax havens made 1.5 percent less money overall, and paid 30.3 percent less in taxes per unit of profits and 17.4 percent less in taxes per unit of assets. They also had debt ratios that were 11.4 percent higher than MNCs without these connections (Jansk and Prats, 2015).

A discrepancy between the incentive and tax role of the transfer price was also discovered by another investigation (Shunko et al., 2014). Even though most taxpayers know their duties well, only 25% of them successfully collect tax payments, with Asia–Pacific countries performing worse (Carnahan, 2015). Tax evasion is more likely to occur in multinational corporations that have expanded internationally by establishing offshore subsidiaries (Park et al., 2016). 56 of the 60 examined MNCs had tax-haven subsidiaries (Omar and Zolkafli, 2015). Pricing to market and tax evasion are two scenarios where multinational corporations may depart from arm’s length prices. Once the factors determining market pricing are under control, the sensitivity of intra-firm prices to foreign taxes is strengthened (Davies et al., 2017). MNCs can make more money by setting transfer prices to optimize overall organization profit rather than just lowering taxes within legal bounds (Gao and Zhao, 2015). The study emphasizes the need for customized transfer pricing laws that follow global best practices and consider each nation’s unique needs (Sebele-Mpofu et al., 2021). In the last two decades, the Chinese tax authorities have emphasized examining international corporations (Chan et al., 2015).
The studies highlight MNCs’ widespread use of tax evasion techniques, including transfer pricing, and their potentially detrimental effects on tax collections and debt ratios. It underlines how crucial countries need to have effective tax collection systems and transfer pricing legislation to discourage multinational corporations from evading taxes. Transfer pricing is a common technique MNCs employ to reduce taxes, and it has substantial effects on tax collections and global trade. The extent to which MNCs use transfer pricing to engage in profit-shifting behavior depends on the ability of tax authorities and recent transfer pricing rules. Despite the potential benefits of recent tax disclosure regulations, monitoring compliance and combating tax avoidance still need to be completed.

Insights of the paper studied are presented below:

The research on the impact of multinational firms’ use of transfer pricing on tax revenues and base erosion is summarized in Table 1. It includes the methodology used in numerous studies as well as their main conclusions, gaps and issues. The studies examine problems such declining investment, shifting profits, underreporting incomes, eroding tax bases and difficulties in tax collection. Overall, the table emphasizes the necessity for thorough investigation and legislative responses to these issues.

Studies on the effects of transfer pricing on multinational corporations (MNCs) are compiled in Table 2. Authors, research methodologies, conclusions, gaps and concerns are all covered. Tax sensitivity, profit manipulation, leading nations, maximizing earnings and complying legislation are among the topics covered. The table identifies knowledge gaps on MNC behavior and the demand for additional study.

Research on the relationship between transfer pricing and tax evasion and profit shifting is compiled in Table 3. It illustrates the methodology, results, gaps and problems that different research have tried to solve. The impact of the OECD/G20 BEPS, correlations between multinationalism and profit shifting, the influence of intangible assets, transfer pricing for tax fraud and tax evasion by diversified multinational businesses are among the topics covered. The chart highlights how crucial it is to investigate these linkages for tax law and policy.

Research on transfer pricing laws and policies is compiled in Table 4. It covers the methodology, conclusions, gaps and problems that different research have addressed. Cheaper exports to tax havens, transfer pricing for profit shifting driven by taxes, the implications of tax-driven foreign direct investment and the benefits of tax transparency are some of the topics covered. The table highlights the need for precise definitions and additional research on how these policies will affect society.

The methods used in transfer pricing research are outlined in Table 5. It covers the authors, research methodology, conclusions, holes and issues raised. Audits of intangible assets, transfer price flexibility, the impact of tax authorities, subsidiaries in tax havens and the auditing of multinational firms are some of the topics covered. The table emphasizes the necessity of practical justification and investigating transfer pricing’s wider implications.

Table 6 lists transfer pricing theoretical analysis and models. Authors, research methodologies, conclusions, theoretical and empirical gaps are all covered. The studies investigate the trade-off between incentive roles and transfer price tax rolls, as well as the effects of border modifications on tax collection and commerce. The table highlights the significance of addressing real-world issues and empirically verifying theoretical models.

The study’s research shed light on how multinational corporations’ (MNCs) taxation, investment choices, profit shifting and tax evasion are affected by transfer pricing. They (de Mooij and Liu, 2020; Marques and Pinho, 2016; Vicard, 2015; Wier, 2020; Liu et al., 2017) emphasize how transfer pricing restrictions affect investment and profit shifting. The connection between tax evasion, transfer pricing practices and tax receipts is frequently emphasized (Richardson and Taylor, 2015; Amidu et al., 2019; Flanagan, 2017). The importance of global comparisons and general equilibrium impacts is emphasized (Büttner
<table>
<thead>
<tr>
<th>Author</th>
<th>Methodology</th>
<th>Finding</th>
<th>Theoretical gap</th>
<th>Empirical gap</th>
<th>Problem</th>
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<tbody>
<tr>
<td>de Mooij and Liu (2020)</td>
<td>Quasi-experimental research and difference in difference approach</td>
<td>Transfer pricing regulations lead to an 11% reduction in investment by MNC affiliates</td>
<td>No analysis of how transfer pricing rules impact investment choices</td>
<td>The study does not investigate if transfer pricing rules affect MNCs differently based on their size, age, ownership, or sectoral composition of affiliates</td>
<td>Exploring alternative policy options for addressing tax avoidance by MNCs</td>
</tr>
<tr>
<td>Vicard (2015)</td>
<td>Regression Analysis</td>
<td>Transfer pricing by MNCs shifts earnings to low-tax countries, causing tax base issues and international imbalances</td>
<td>Focuses on French trade data at the corporate level</td>
<td></td>
<td>Examining the impact of profit shifting on other countries’ tax bases and international imbalances</td>
</tr>
<tr>
<td>Flanagan (2017)</td>
<td>Utilizes unique transaction-level microdata to measure firm-level transfer-price differentials</td>
<td>Transfer pricing by MNCs underreports earnings and costs countries’ tax revenue</td>
<td>Does not explore how production costs or market conditions may affect transfer pricing behavior</td>
<td>The paper only focuses on U.S. multinational firms and their transfer pricing behavior</td>
<td>Differential Behavior of Arms-Length and Related Party Trade Flows: A Call for Future Research</td>
</tr>
<tr>
<td>Janský and Prats (2015)</td>
<td>Comparison of the profits and taxes made on each MNC asset unit</td>
<td>MNCs with connections to tax havens reported lower profits and asset taxes, eroding the tax base</td>
<td>Does not offer a thorough examination of how profit-shifting affects efforts to advance development in underdeveloped nations</td>
<td>Does not offer a thorough examination of how profit-shifting affects efforts to advance development in underdeveloped nations</td>
<td>Identifying formulae that partly distribute revenues throughout the many operating jurisdictions for the company Assessing challenges in tax collection and revenue generation, particularly in Asia-Pacific countries</td>
</tr>
<tr>
<td>Carnahan (2015)</td>
<td>Assessing Financial Accountability and Public Expenditure Analysis</td>
<td>Most taxpayers are aware of their duties. However, only 25% of nations successfully collect taxes, with Asia-Pacific countries performing worse</td>
<td>Does not provide a comprehensive analysis of the different tax policies or methods that developing countries might choose</td>
<td>Political, social, and economic aspects that may affect the implementation of tax reform in emerging nations need to be thoroughly analyzed</td>
<td>Assessing challenges in tax collection and revenue generation, particularly in Asia-Pacific countries</td>
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Table 1. Impact of transfer pricing on tax revenues and base erosion

Source(s): Table created by author
and Thiemann, 2017; Davies et al., 2017; Kumar et al., 2021; Cristea and Nguyen, 2016; Choi et al., 2020), and the role of intangible assets in transfer pricing decisions is discussed (Sari et al., 2022). Although many methods are used, it is necessary to conduct a more thorough

<table>
<thead>
<tr>
<th>Author</th>
<th>Methodology</th>
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<th>Theoretical gap</th>
<th>Empirical gap</th>
<th>Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marques and Pinho (2016)</td>
<td>Creating a transfer price index</td>
<td>Earnings tax rate differential sensitivity decreases with stricter transfer pricing</td>
<td>Replication in various countries/regions and differing transfer pricing rigidity and revenue bonuses is needed to confirm the findings</td>
<td>Assessing transfer pricing regulations' efficacy in non-European nations and their effect on MNCs' profit-shifting behavior</td>
<td>Examining transfer pricing regulations' influence on MNCs' profit-shifting behavior in non-European nations</td>
</tr>
<tr>
<td>Wier (2020)</td>
<td>Use transaction-level custom data to test for differences between transfer prices and “arm’s-length pricing.”</td>
<td>South African MNCs manipulate transfer prices to move taxable earnings, costing imported goods 0.5% of corporate tax</td>
<td>Transfer mispricing in poor nations needs to be proven</td>
<td>Developing countries need firm-level transfer pricing data</td>
<td>Conducting comparable studies in other developing nations to assess transfer mispricing</td>
</tr>
<tr>
<td>Kumar et al. (2021)</td>
<td>Bibliometric Analysis of Scopus Data</td>
<td>The United States is the leading country in transfer pricing, followed by the United Kingdom and Australia</td>
<td>Transfer pricing as a business tool needs to be examined beyond compliance and tax management</td>
<td>Transfer pricing’s strategic effects on firms need additional empirical research</td>
<td>Exploring the strategic effects of transfer pricing on firms</td>
</tr>
<tr>
<td>Gao and Zhao (2015)</td>
<td>Creating a thorough model to calculate the best transfer price for a multinational business (MNC) to optimize profits</td>
<td>Setting transfer prices to optimize overall organization profit can impact MNCs’ market share and competitive advantage</td>
<td>Examining how transfer pricing affects the MNC’s market share and competitive advantage</td>
<td>Identifying the impact of transfer pricing on MNCs’ market share and competitive advantage</td>
<td></td>
</tr>
<tr>
<td>Sebelle-Mpofu et al. (2021)</td>
<td>Interpretivism research paradigm, Qualitative method</td>
<td>The article underlines the requirement for transfer pricing laws that are compliant with international best practices and relevant to the nation’s needs</td>
<td>Lack of empirical research on MNEs’ tax evasion and manipulation of transfer pricing in developing nations, particularly in Africa</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2.** Effect of transfer pricing on MNCs’ behavior

**Source(s):** Table created by author
empirical study and include firm-level data (Sebele-Mpofu et al., 2021; Chan et al., 2015). Overall, these studies aid in comprehending the dynamics of transfer pricing and the necessity for alternative regulations, global comparisons and rigorous empirical study in this area.

**Discussion**
de Mooij and Liu (2020) emphasize the necessity to look into the efficiency of transfer pricing restrictions in reducing MNCs’ tax evasion while also looking into alternative policy
approaches for dealing with this problem. Additionally, they emphasize how crucial it is to evaluate the effects of transfer pricing policies on other economic outcomes, such as employment or innovation, and to compare their effects across other nations and regions. Richardson and Taylor (2015) investigate the connection between intangible assets, aggressive transfer pricing and audit activity using tax havens. Vicard (2015), in a similar vein, looks into the effects of profit shifting on the tax base, global inequalities and the function of transfer pricing in the digital economy. Rathke (2015) proposes developing new models and methodologies to capture better the complexities of transfer pricing manipulation and its effects on tax receipts and economic growth, as well as investigating the behavior of multinational corporations in response to adjustments in tax policies and enforcement measures.

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<tbody>
<tr>
<td>Davies et al. (2017)</td>
<td>Regression analysis</td>
<td>Exports to tax havens are 11% cheaper at intrafirm prices</td>
<td>Limited to a partial equilibrium framework and does not account for general equilibrium effects</td>
<td>Focuses on a single country (France) and a single year (1999)</td>
<td>Targeting enforcement against firms exporting to tax havens to reduce transfer pricing tax avoidance</td>
</tr>
<tr>
<td>Liu et al. (2017)</td>
<td>Regression analysis and difference-in-differences estimation</td>
<td>MNCs use tax-motivated transfer pricing in physical products to shift profits to lower-taxed locations</td>
<td></td>
<td></td>
<td>Examining how tax laws affect transfer pricing in different nations</td>
</tr>
<tr>
<td>Choi et al. (2020)</td>
<td>Theoretical Model</td>
<td>Tax-driven foreign direct investment may result in inefficient domestic production but benefit consumers, and increasing transfer pricing can marginally increase social welfare</td>
<td></td>
<td></td>
<td>Investigating the interaction between tax competitiveness and transfer pricing rules</td>
</tr>
<tr>
<td>Oats and Tuck (2019)</td>
<td>Discussing the advantages and restrictions of recent tax transparency requirements</td>
<td>Recent tax transparency requirements have advantages but need a precise definition of acceptable corporate tax evasion</td>
<td></td>
<td></td>
<td>Exploring the potential dysfunctional consequences of tax transparency</td>
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Source(s): Table created by author

Table 4. Evaluation of transfer pricing regulations and policies
Future research directions are also suggested by several studies, including those that examine the transfer pricing policies of MNCs in various contexts, including developing nations (Muhammadi et al., 2016; Wier, 2020; Amidu et al., 2019); compare transfer pricing policies in various nations and regions (de Mooij and Liu, 2020; Klassen et al., 2017); and investigate the effects of transfer pricing manipulation on the competitiveness of businesses and the economy as a (Rathke, 2015). These studies offer insightful information about transfer pricing rules and how they affect multinational corporations and the economy. However, further investigation is required to fully understand these problems and create sensible legislative responses to MNC tax avoidance.

Table 5. Methodologies and approaches in transfer pricing research

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Muhammadi et al. (2016)</td>
<td>Open-ended interviews</td>
<td>Intangible property transfer pricing audits provide various issues for Indonesian tax auditors</td>
<td></td>
<td>Comparing multinational company transfer pricing in different contexts using consistent approaches</td>
<td>Studying how transfer pricing manipulation affects corporate and economic competitiveness</td>
</tr>
<tr>
<td>Rathke (2015)</td>
<td>Theoretical Model</td>
<td>Firms have more flexibility to manipulate transfer prices if the market range is large or unclear due to the arm’s length principle</td>
<td>Lacks practical facts to substantiate its theoretical results</td>
<td></td>
<td>Investigating the relationship between tax authority capacity and transfer pricing</td>
</tr>
<tr>
<td>Nguyen et al. (2020)</td>
<td>Positivist research philosophy, deductive reasoning, quantitative research methods</td>
<td>Tax authority capacity will likely affect transfer pricing</td>
<td></td>
<td></td>
<td>Investigating the prevalence of profit shifting through transfer pricing</td>
</tr>
<tr>
<td>Omar and Zolkaflil (2015)</td>
<td>Quantitative research using financial data</td>
<td>56 MNCs had subsidiaries in tax haven jurisdictions out of the 60 MNCs examined</td>
<td>Without considering other pertinent effects, profit shifting is examined from a single perspective</td>
<td></td>
<td>Examining the auditing practices related to transfer pricing</td>
</tr>
<tr>
<td>Chan et al. (2015)</td>
<td>Statistical Analysis, Sensitivity Check, Robustness Check</td>
<td>Over the past 20 years, auditing multinational corporations has become the primary focus of Chinese tax officials</td>
<td></td>
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Source(s): Table created by author
Because of the possible effects it could have on tax collections, economic expansion and social welfare, transfer pricing is a complicated problem that has recently attracted much attention. Based on a literature review, this talk seeks to identify and address five typical transfer pricing research issues. This essay addresses the transfer pricing research themes and examines the research issues raised by 30 papers. This talk will then give a general overview of academics’ difficulties and opportunities while researching transfer pricing, as well as possible directions for future research.

Examining the effects of transfer pricing laws on various multinational corporations (MNCs), such as those in various industries or sizes, is the most frequent and interesting issue. The papers de Mooij and Liu (2020), Richardson and Taylor (2015), Vicard (2015), Wier (2020), Sari et al. (2022), Amidu et al. (2019) and Klassen et al. (2017) all address this issue. Examining the effectiveness of transfer pricing regulations in reducing tax avoidance by MNCs, looking into alternative policy options for addressing tax avoidance by MNCs and examining the effects of transfer pricing on other economic outcomes, such as employment or innovation, are other related issues that are frequently addressed in the papers. The following list of five typical issues with transfer pricing and tax evasion could be discussed:

1. Effectiveness of transfer pricing rules: One pervasive issue is how well transfer pricing restrictions work to stop multinational corporations from avoiding taxes. Numerous studies indicate that transfer pricing is frequently exploited as a method of tax evasion, but it still needs to be determined if the restrictions in place today are enough to stop this activity.

2. Impact on developing countries: The effects of transfer pricing on developing nations are a common issue. Transfer pricing is a common strategy multinational corporations use to move earnings from developing nations to low-tax jurisdictions, decreasing the tax revenue available to these nations.

3. The function of tax havens is to facilitate transfer pricing and other types of tax evasion. Numerous studies contend that multinational corporations artificially reduce their tax obligations using tax havens. However, it is still being determined how successful efforts to do away with tax havens have been.
Conclusion
Transfer pricing has become a major problem for researchers and politicians everywhere. Significant economic, functional and organizational ramifications exist to pricing intra-group transactions between multinational firms under common ownership and control. Transfer pricing can be a useful tool for MNCs in their commercial operations, but it can also be used for unethical and illegal acts, including tax avoidance, profit shifting and unauthorized money transfers. Transfer pricing research is still important, particularly in developing nations where tax revenues are crucial for economic growth and development. This comprehensive review of the literature emphasizes the need for additional study to address the critical transfer pricing issues, such as the impact of transfer pricing regulations on multinational corporations (MNCs), the efficiency of transfer pricing regulations in reducing tax avoidance, the creation of effective policy options to reduce tax avoidance, the relationship between transfer pricing and other economic outcomes, and the investigation of transfer pricing as a business tool. The results of this review can be used by graduate students in this subject who are seeking advanced degrees such as a master’s, thesis or PhD to pinpoint research issues and suggest future lines of inquiry.

This systematic literature review sought to assess transfer pricing research over the last nine years in great detail (2014–2022). The review of transfer pricing research is based on the study of twenty-nine research publications from the Scopus database, and it highlights the top authors, techniques, findings, theoretical and empirical gaps and potential future research issues. The report identifies five key research questions for graduate students pursuing advanced degrees in this discipline. These issues involve evaluating the efficiency of transfer pricing rules, looking at various tax avoidance prevention measures and examining the impact of transfer pricing on other economic outcomes. The analysis emphasizes the need for transfer pricing research to go beyond tax compliance and administration and thoroughly examine transfer pricing as a business tool. The relevance of transfer pricing in multinational firms and corporate conglomerates is emphasized throughout this review, along with the demand for more research in this field.

References


Further reading

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