

**TRANSFER PRICES FOR DIGITAL BUSINESS MODELS: EVIDENCE
FROM SAUDI ARABIA**

Dr. Salah Ahmed Oraby,

Associate Professor, Accounting Department, Saudi Electronic University

s.oraby@seu.edu.sa

Abstract:

The study aims to investigate the influence of the challenges to the applied transfer prices (TP) methods for digital business (DB) transactions on the effective tax accounting in Saudi Arabia. The study discussed both the arm's length transaction theory and the profit-sharing theory that govern transfer pricing for the related parties' transactions. The study uses the structured questionnaire method- in which several tax and financial experts take part -to collect the primary data to measure the study variables. The first challenge to the applicable TP is the Lack of the comprehensive data and information on the DB transactions is used as the independent variable in the first regression model. While the second challenge is the absence of the physical presence of the enterprises and intangible assets is used as the independent variable in the second regression model. The study uses "Cronbach's Alpha" coefficient to evaluate the reliability of the structured questionnaire. The results of the first least squared regression model show that the first challenge is statistically significant and has a small impact on the effective tax accounting as the model explains only 17.7 % of the change in the dependent variable. In addition, the results of the second regression model show that the second challenge is statistically significant and has an impact on the effective tax accounting as the model explains only 33 % of the change in the dependent variable. The results show that the small influence of the challenges referred to provide reasonable empirical evidence on the effective applicable of TP models for the DB in Saudi Arabia to prevent tax evasion because Saudi Arabia applies the best international practices in the field of TP for digital business, however, the Saudi Arabia is a developed country. Some earlier studies show that there is no practical evidence of the existence of the phenomenon of profit shifting using transfer prices in Saudi Arabia, which shows the effective application of transfer pricing systems. The results of the study have positive repercussions on investors' confidence in the investment climate in the Kingdom, as the effective tax system is one of the incentives for foreign investments.

Keywords: Arm's Length Transactions - Permanent Establishment- Value Creation- Intangible Assets –Tax Evasion - Physical Presence.

1.Introduction

The TP issue has become increasingly complex among subsidiaries of multinational corporations due to the growing volume of transactions between these corporations (Boiță et al., 2013; Shantanu & Pendse,2012). The transfer price is the price used by subsidiaries in transactions between them, whether in the transfer of tangible or intangible assets. These

transactions are not conducted based on “free market principles or the principle of ‘arm's-length transactions’”. Therefore, the regulatory authorities adjust these prices so that the transfer prices are as if they were among independent parties by adjusting the income or expenses recognized in the financial statements. Therefore, governments depend on the “arm's length principle” (Kumar et al., 2021).

The Saudi economy is undergoing a massive transformation to diversify its sources of income away from its reliance on oil by encouraging foreign investment through multinational enterprises. In Saudi Arabia, the discussion on TP has long been around the petrol as documented by various scholars including, (Bernard & Weiner, 1990; Sikka & Wilmott, 2010). (Bernard & Weiner, 1990) noted that multinational enterprises in the Saudi oil industry often engage in under-invoicing as a means of reducing the tax due to their home countries. (Sikka & Wilmott, 2010) noted that the sale of oil by petroleum companies to their own tanker companies at extremely low prices reduces income and taxes due to countries such as Saudi Arabia. These studies provide a glimpse of an issue that is likely to face Saudi Arabia, with regards to new digital companies. TP in Saudi Arabia is a pressing challenge worsened by the unique characteristics of DB models. Digital assets, such as intellectual property and user data, pose valuation difficulties for intra-company transactions. The study focuses on business models that use the internet in their operations as these models encompass a wide range of activities, including online retail, digital services, cloud computing, and platform-based businesses. The internet serves as the fundamental infrastructure that enables these businesses to reach global markets, interact with customers, and ease transactions without the constraints of physical boundaries. However, Studying the internal TP to distribute costs of supporting departments to operating departments is out of the scope of the current study as the focus is to use TP for DB from tax perspective. The study is motivated by the extremely limited earlier studies in Saudi Arabia as the current study focuses on the practical aspect in the Kingdom as the unit of study rather than the theoretical aspect, which was extensively researched in earlier studies. One of the most important challenges facing developing countries about TP is the failure of subsidiaries of multinational enterprises to expose transfer-pricing methods, especially for intangible assets. The main aim of the current study is to examine the effective application of TP for digital transactions in Saudi Arabia. The current study contributed to the current literature related to transfer prices for DB transactions, as it addressed the Saudi case being one of the promising developing countries as it is the first study that addressed transfer prices from the perspective of digital transactions. Therefore, the study tries to fill this gap in the current literature.

2. Transfer Pricing Theories

According to Philip, et al. (2025) there are two theories governing transfer pricing for transactions between related parties: the arm's length transaction theory and the profit-sharing theory. In addition, the Game theory is used to analyse the behaviour of tax authorities and taxpayers.

Arm's Length Transaction Theory

This theory has encouraged the unification of tax treatment for cross-border transactions between related parties. This theory was developed by OECD in 1995, which later was part of

the international initiative that ensures that transactions between related parties are priced as if they were between arm's length parties (Sander et al., 2024; Doeleman, 2023). The arm's length transaction theory has become the benchmarking for tax accounting for cross-border transactions. The theory assumes that transactions between related parties should reflect the prevailing market conditions (John, et al., 2024). The theory aims to prevent tax manipulation to ensure that tax revenues are not shifted to countries with lower tax rates. The theory faces some criticism, including that it focuses more on the theory of market-based pricing than on the theory of the economic substance of transactions, and thus the theory may allow related parties to engage in tax evasion (Agba, 2024; Ogunoye et al., 2023; Agba et al., 2023).

Profit-Sharing Theory

OECD (1995) developed the profit-sharing theory as this theory assumes that the economic contribution of each member of the related group involved in the transaction between the related parties decides how profits are distributed among the group members (Richter.,2024). This theory is applied when it is difficult to find similar transactions, especially for intangible assets, for profit-sharing among the related group members. Therefore, the participation of each member in the group in the value creation chain decides the allocation of profits to each member (Gaiya et al., 2024; Garbo et al., 2024).

Game theory

Game theory assumes that players choose actions that achieve the greatest benefit for the related parties and tax authorities. Earlier studies have used this theory to analyse the interaction between tax authorities and taxpayers (Radaelli,1998; Vogele, et al. 2008; Torgler, 2003; Salazar, et al. 2018). According to (Jakhar & Nuraini, 2025) ME employed TP to shift profits to countries with lower tax rates and have adopted unrealistic transfer pricing policies for intangible assets, particularly in the technology and cosmetics industries, by exploiting loopholes in the regulatory framework, the lack of transparency, and the existence of an unfavourable legal environment.

3. Literature Review

According to “organization for Economic Co-operation and Development” OECD ,1979, 2001, the following TP methods, can be used: OECD Method, as it prefers the “arm’s length principle” as the OECD Model is the framework for bilateral treaties between OECD countries, in addition, it was adopted by several non-OECD countries; Comparison Method; Net Margin Method; Cost Method; Resale Method, and the Profit-Sharing Method. There is a great deal of controversy between tax authorities and multinational enterprises (ME) about related transactions among subsidiaries of ME.

TP is not a new idea for individuals within the world of business. However, it is not a common term for simple forms of business since it often affects conglomerates and ME. TP is a term that is used for internal subsidiaries’ transactions which often results in distorted taxation (Choi, et al., 2020). TP is a method applied by tax authorities to decide the proper amount of tax that companies ought to pay for services and goods exchanged with related parties. The shift in the economic dynamics has seen the growth of DB and their speed of operations in the

developed countries (Irawan, et al., 2022). Such growth can be problematic because it presents a new frontier of taxation problems for an issue that was yet fully unresolved in its traditional sense. The terms "transfer pricing" pertains to the pricing of transactions involving goods, services, intangible property, rents, and loans between parties under common control, typically related entities within ME. Unlike transactions between unrelated parties, where market forces dictate prices, TP involves transactions between affiliated entities where prices may not reflect market conditions. The discussion on tax collection from digital businesses has been a tenuous practical and theoretical one. Interest in TP shows how controversial the subject can be. It is worth noting that unlike traditional firms, digital businesses have the flexibility to structure their operations and distribute profits across different authorities to minimize tax liabilities.

The challenge of dealing with companies that do not have a physical presence in countries where they run makes enforcement a challenging thing to consider (Mpofu & Wealth, 2022; Apriadi, & Monalysa, 2021; Mpofu & Wealth, 2022). Most of the prior research available on TP has not combined developing nations and digital businesses as part of their key concerns. (Mpofu & Wealth, 2022) said that there has been an increase in DB growth and penetration across most developing nations because of expanding internet connectivity across most of these countries. However, some scholars such as (Tom, 2023; Pandey, et al., 2023) have considered insufficient TP regulations to be part of the larger taxation problems affecting developing nations when dealing with digital businesses.

The conversation on TP is not entirely new within research and academic circles. (Lall, 1979), touched on this subject and called for remedial actions to stop developing countries from suffering the disadvantages of income shifting. The same view was taken by (Borkowski, 1997), who acknowledged the disadvantageous nature of lower tax payments in the developing nations. (Kalra, & Afza, 2023; Twesige, et al., 2020) have contended that lax tax regulations and the lack of sufficient comparative data result in poor TP regulations across most developing nations, which result in lower tax revenues from ME running in those countries. Traditional TP methods, such as the comparable uncontrolled price method and the cost-plus method, depend on the presence of physical assets and tangible transactions, making them ill-suited for valuing intangible assets and digital transactions (Grondona, 2019). Traditionally, the principle of value creation (VC) in taxation has focused on the supply side, attributing profits to authorities where production activities occur. (Chen et al. 2015) said that in the digital economy, where value is increasingly derived from data use and user engagement, there is a growing debate over where taxing rights should lie. Some argue that market states, where products and services are consumed, deserve a larger share of the profits created by non-resident enterprises. This perspective aligns with the benefit principle, which posits that enterprises should contribute taxes in exchange for receiving help from public services provided by an authority. The Framework acknowledges the importance of data and user participation in VC within the digital economy. However, there are differing viewpoints on how to define and attribute value in this context, particularly about the taxation of digital activities (OECD, 2017). While some scholars argue that VC simply reflects the source of income or capital, others contend that the digital economy presents unique challenges that call for different tax treatment. (Petruzzi, et al. 2018)

said that the effective application of the transfer pricing rules resolves the problem of profits attribution to all tax authorities in case digitalized companies generate their value.

One of the most important principles in TP is “the permanent establishment” (PE). The concept serves as a crucial rule for deciding a state's authority to tax the business profits of non-resident enterprises. It sets up a nexus threshold, outlining when a foreign enterprise is subject to taxation in each authority (Jamroży & Majdowski, 2022). Currently, PE provisions typically require that an enterprise keeps a certain level of physical presence within the foreign state. Without PE, the business profits of the enterprise are taxed only in the state where the enterprise holds tax residency. The current concept of PE does not account for all virtual activities related to user data, resulting in non-taxation when the value is contributed to the enterprise in various locations (Monsenego, 2022). Moreover, added tax complexities arise in the case of ME, where indirect network effects occur. In such platforms, users can contribute to the platform's value, generate new valuable data, and expand the user base through social networks. The traditional framework of TP encounters limitations when applied to DB models, primarily due to the absence of a discernible physical presence. (Aslam & Shah, 2020) have acknowledged this challenge has prompted countries to explore alternative approaches, one of which is the concept of a virtual PE. This has posed challenges for source states, as they may miss substantial tax revenue, they believe they are entitled to. Moreover, it has created a disparity between traditional and DB models, placing considerable pressure on the equality between them.

The rapid evolution of information technology has long been recognized as a potential catalyst for extensive involvement in the economy of another state without the need for physical presence. (Ahmedov, 2020) said that this phenomenon is commonly referred to as digital economy, which encompasses various aspects of electronic commerce. E-commerce, broadly defined as conducting business transactions over the internet, extends to any commercial activity involving electronic communication or information exchange, such as through fax machines or telephones. DB models show enhanced mobility across various aspects of their operations. This mobility extends to business functions, assets, consumers, and operations, eased by advancements in technology (Ahmedov, 2020). For instance, digital enterprises can easily transfer rights to software and other intangible assets to entities found in low-tax authorities, allowing them to separate profits from the activities that generated their value. Moreover, consumers are increasingly mobile, conducting commercial activities via internet-connected mobile devices while on the go. The expanded possibilities of communication enable digital businesses to manage complex functions remotely, reducing the need for costly physical infrastructure and local staff. Data plays a pivotal role in the operations of many digital businesses, with companies relying heavily on the collection and analysis of user data. This data, obtained from users, customers, and suppliers worldwide, is used to enhance products or services, customize marketing efforts, and potentially monetize through third-party sales (Yang, et al., 2020). Various methods, such as online forms, browsing history tracking, and geographical data tracking, are employed to gather and process data, creating substantial value through analysis and ownership. The rise of multi-sided business models further characterizes the digital landscape, where technology platforms ease interactions between different user groups. These platforms, exemplified by app stores for mobile devices, allow users and third

parties to develop content that helps the broader user base (Turina, 2020). According to (Monsenego, 2022) one of the primary characteristics of digital markets is direct network effects, where the value of a platform increases as its user base expands. This phenomenon is particularly clear in social media platforms, messaging apps, and online gaming platforms, where the presence of more users enhances the overall value proposition.

A pivotal aspect of this tax challenge lies in the escalating significance of user-generated data. For taxation purposes, user data may be situated in several separate locations (Monsenego, 2022). The first location pertains to data collection, encompassing user-generated data sourced from various online and offline channels, including communication, transactions, production, and behaviour. The OECD terms this as "data originating." The second location involves the conversion of collected data into readable and accessible big data, which can be stored and processed on computer equipment or servers situated globally. Subsequently, the third possible location of user data pertains to the residency of enterprises that analyse and process big data by developing algorithms. For instance, in a digital advertising business model, data collected from one user group may be used to refine advertisements for another user group, thereby contributing value to the advertising enterprise.

Montenegro (2022) said that tax authorities often employ a targeted approach in their audit selection process, focusing on specific business profiles or characteristics that raise red flags. These may include low margins, persistent losses, significant payments to connected parties for intangible assets, many transactions to authorities with low or zero taxes, substantial revenues from related parties, inadequate documentation, and frequent business restructuring. Such indicators increase the likelihood of investigation by tax authorities in Saudi Arabia; TP regulations closely adhere to the OECD model. To mitigate risks, businesses should keep both local and master files, ensuring that economic analyses and benchmarking studies are comparable to the tested party (White, 2019). They should also prepare income projections and cash flows to justify any loss-making activities and ensure that agreements supporting transactions with related parties and favourable tax authorities are properly documented. ME needs to conduct holistic reviews and risk assessments across the entire group to find and address potential areas of concern.

The concept of transfer pricing is new in the Kingdom and in many developing countries (Vladimir & Gidirim, 2016). Department of Zakat and Income Tax (DZIT) in Saudi Arabia faces challenges when accounting for tax transactions between related parties and seeks to ensure that these transactions are consistent with the guidelines issued by OECD (2010) and the UN (2013). Given "OECD and G20 Base Erosion and Profit Shifting" initiative progresses, several tax authorities including Saudi Arabia are planning to implement the suggested documentation that is a three-tiered based approach, including a "master file", "local files" and a "country- by-country report". As Saudi Arabia is a key member of the G20, the international tax community is likely to closely check whether the DZIT elects to refer to these documentation standards. This will become clear when DZIT formally introduces its own version of transfer pricing rules, following MR 1776 of 2014. In the KSA, transfer pricing cases are covered within the "mutual agreement procedures" (MAP) and the ZATCA provides

transparent information through its MAP Guidance DZIT. Saudi Arabia adopted Dispute Resolution Profile issued by OECD to aid foreign investors in understanding its tax dispute policy concerning transfer pricing to resolve transfer pricing disputes in Saudi Arabia (Cynthia & Galvez, 2013. Michael & Reisman, 2014; Alvik, 2011).

Saudi Arabia issued the transfer pricing Bylaws which increased burden on ME running in Saudi Arabia given the cultural norms and business practices. (Hani, 2020; Alhassan,2021) investigated the process of transferring profits across countries with varying tax rates, the results revealed that in case of Saudi Arabia oil and gas sector, the model did not detect using transfer pricing in moving profit. However, other countries such as Japan, Korea, Norway, Poland, and the United Kingdom, the model provided results confirming the existence of transfer pricing behaviour to move profits. The executive Bylaws defined “the Arm’s Length Principle” in field of TP as follows: “Where conditions are made or imposed between two or more Related Per-sons in their commercial or financial relations which differ from those which would be made between Unrelated Persons, then any profits which would, but for those conditions, have accrued to one of such Related Persons, but, by reasons of those conditions, have not so accrued, may be included in the profits of that person and taxed accordingly”. Effective risk assessments enable decision-makers in Saudi businesses to decide whether adjustments are needed to their accounting and tax records before submission to DZIT (Hani, 2020). Such assessments can also help ensure that transactions with related parties are conducted using the market value. When DZIT suspects potential TP issues, it may request business's local and master files, intra-group agreements, and risk profile through interviews or written requests (Altawyan & Wrappe, 2022). After reviewing the documentation, DZIT will complete its position and issue an assessment. If a business disputes the assessment, it can file an objection with ZATCA, and if no agreement is reached, litigation through tax courts may follow. Legal advice is essential at this stage to navigate procedural and legal formalities before an appeal can be heard and decided.

Based on the literature review, the study developed the following hypotheses

1. The Lack of the comprehensive data and information on DB transactions negatively affects the applicable TP models for DB in Saudi Arabia.
2. The absence of the physical presence negatively affects the effectiveness of the applicable TP models for DB in Saudi Arabia.

4. Methodology

Research Method, Sample and Data Collection

The study used the structured questionnaire method to gather the primary data to assess the study’s hypotheses. The target population includes tax consultants and financial experts specializing in DB taxation. The selected participants own diverse experiences and skills needed to the TP, to assess challenges Saudi Arabia faces in implementing transfer-pricing regulations for digital businesses. The sample size consisted of 218 individuals (female=11, male = 207). Among them, twelve were tax consultants, four of whom had earlier experience working as financial experts in digital firms. The remaining participants were financial experts

whose primary ability in DB taxation. This diverse sample composition ensured representation from various perspectives within the target population. Out of the respondents, only twenty-six were below the age of twenty-five. Those between the ages of 25 and 35 were 157. Those between the ages of 36 and 50 were thirty-two. Only two respondents were over the age of 50 years. Among the respondents, 185 had a bachelor's degree alone. The remaining had a master's degree. None of the respondents had a doctorate.

Table 1: Demographic Information

Sample Composition	Count	Percentages
Gender		
* Female	11	5.05
* Male	207	94.95
Occupation		
* Tax Consultants	12	5.51
* Financial Experts	206	94.49
Age		
* Below 25 years	26	11.93
* 25 to 35 years	157	72.03
* 36 to 50 years	32	14.68
* Over 50 years	2	0.92
Education		
* Bachelor's Degree	185	84.86
* Master's Degree	33	15.14

Table 2 showed the Descriptive Statistics of all the study variables, for the first variable related to effectiveness, the mean is 2.62, showing level of perceived effectiveness. The standard deviation (ST) is 0.852, suggesting some variability in respondents' beliefs. The second variable, related to physical presence absence as the mean is 1.51, showing a level of perceived difficulty. The ST is 0.501, suggesting low variability in responses. In the third variable related to Absence of the Physical Presence Traditional Methods the mean is 2.61, showing a level of perceived impact. The ST is 1.111, suggesting some variability in responses. The fourth variable related to Lack of the Comprehensive Data, the mean is 1.69, showing a low level of perceived impact. The ST is 0.708, suggesting variability in responses. The fifth variable, related to role of digitalization in transfer pricing, the mean is 2.08, showing a level of

perceived importance. The ST is 0.978, suggesting some variability in responses. the last variable related to optimism in improving TP regulations, the mean is 2.73, showing a level of optimism. The ST is 0.952, suggesting some variability in responses.

Table 2: Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Effectiveness Current TP Regulations	218	1	4	2.62	.852
Absence of the Physical Presence	218	1	2	1.51	.501
Absence of the Physical Presence Traditional Methods	216	1	5	2.61	1.111
Lack of the Comprehensive Data	218	1	3	1.69	.708
role of digitalization in transfer pricing	218	1	4	2.08	.978
optimism in improving TP regulations	218	1	4	2.73	.952

Analysis of the Results and Testing Hypotheses

The study used “Cronbach’s Alpha” Coefficient as a proxy for the reliability of the internal consistency of the questionnaire questions, showing how closely related a set of items are as a group. A commonly accepted threshold for “Cronbach's Alpha” is 0.70 or higher, suggesting acceptable reliability. In this study’s case, the Cronbach's Alpha value is 0.80, which exceeds the desired threshold of 0.7. This shows that the survey questions have satisfactory internal consistency, implying that they measure the same construct adequately.

Table 3 showed that the regression model overall is statistically significant. This conclusion is drawn from the F-statistic value of 12.424 and the associated p-value .000 which is less than the typical significance level of 0.05, the model explains only .177 of the change in the independent variable. Therefore, the study accepts the first hypothesis and concludes that the regression model is statistically significant in estimating the effectiveness of current TP regulations for DB for tax accounting as the Lack of the comprehensive data and information on DB transactions challenges the effective implementation of the applicable TP models for DB for tax accounting in Saudi Arabia as this hypothesis tested by four independent variables as explained in the appendix. The predictors collectively have a meaningful impact on the perceived effectiveness of TP practices for digital businesses for tax accounting. Therefore, it is possible to conclude that the model explains only 17, 7% of the variance in the perceived effectiveness by the respondents. In addition, the correlation coefficient value of 0. 438 suggests a low positive correlation among the variables.

Table 3: Model one

	F Test	Adjusted R square	R	p-value
Regression	12.655	.177	0.438	0.000

The dependent variable in the second hypothesis is the effectiveness of the current TP regulations, while the independent variables are absence of physical presence and the role of digitalization as an aspect of taxation. Table 4 showed that the regression model is statistically significant as per the F-statistic value recorded 14.189 and the associated p-value recorded 0.000. This shows that the regression model explains only 0.30 of the change in the dependent variable. Therefore, the study accepts the second hypothesis and concludes that the absence of the physical presence challenges the effectiveness of the applicable TP models for DB as this hypothesis is assessed by eight independent variables as explained in the appendix. The predictors collectively have a meaningful impact on the perceived effectiveness of TP practices for digital businesses. Therefore, it is possible to conclude that the model explains only 30% of the variance in the perceived effectiveness by the respondents. In addition, the correlation coefficient value of .569 suggests positive correlation among the variables.

Table 4: Model two

	F TEST	Adjusted R square	R	p-value
Regression	14.189	0.30	0.569	0.000

Analysing the results of the questionnaire questions, each question separately

Familiarity with TP Regulations

The survey investigated participants' familiarity with TP regulations for digital businesses in Saudi Arabia as all the respondents noted that they were conversant with transfer pricing.

Effectiveness of Current TP Regulations

The effectiveness of current TP regulations in addressing the unique characteristics of digital businesses is a critical concern for policymakers, tax authorities, and industry experts. Table 5 showed a positive assessment of the regulatory framework's ability to address the unique challenges posed by digital businesses in context transfer pricing.

Table 5: The Effectiveness of Current TP Regulations

Response	Financial Experts (%)	Tax Consultants (%)
Not effective at all	5.56	8.33
Somewhat- effective	33.33	33.33
Moderately effective	44.44	41.67

Highly effective	16.67	16.67
------------------	-------	-------

Challenges Related to Absence of Physical Presence

Table 6 graphically stands for the breakdown of responses from both demographics about the difficulties of lacking physical presence in digital transaction transfer pricing. Half of the respondents (44.44% of financial experts and 58.33% of tax consultants) expressed difficulties in assessing TP for digital transactions, which were mostly triggered by the absence of physical presence. In this sense, it reflects that a respectable number of respondents face problems associated with the fact that digital assets do not have any tangible existence and businesses go on across the borders. However, a considerable number of respondents, to the amount of 55.56% among the financial experts and 41.67% in case of the tax consultants, did not experience any issues linked to the lack of physical presence. First, it implies that a significant sub-population of participants might have found a way to avoid or to reduce the effect of the problem. Most of the answers support the fact that the method of physical presence should be one of the key components in deciding the TP for digital transactions.

Table (6): Challenges Related to Absence of Physical Presence

Response	Financial Experts (%)	Tax Consultants (%)
Yes	44.44	58.33
No	55.56	41.67

Influence of the Absence of the Physical Presence on the Traditional TP Methods

Table 7 shows the difference in thoughts and ideas about the influence of being physically present on accuracy. It is noteworthy that some minorities from both groups revealed a view that the lack of physical presence can even strengthen the performance of conventional TP methods. About 11.11% of financial consultants agreed and tax advisors (16.67%) shared their thoughts as well. A tiny fraction of financial experts (0.056%) doubted the effect of the decrease in physical presence on the accuracy of TP rules, while no tax consultants chose this answer. Consequently, the table shows that it is difficult to draw a uniform conclusion about the relationship between the tangible aspect and the accuracy of the conventional TP techniques in the digital environment. However, some people argue that it gives them considerable or minor losses of accuracy. On the other hand, some people believe accuracy will remain unchanged or improve. It is the reason we see that TP is difficult in the digital domain because it calls for special approaches to deal with the challenges.

Table 7: The Challenges Related to Absence of Physical Presence

Response	Financial Experts (%)	Tax Consultants (%)
Significantly decreases accuracy	16.67	33.33
Slightly decreases accuracy	16.67	16.67

Does not affect accuracy	50.00	33.33
Increases accuracy	11.11	16.67
Not sure	5.56	0.00

Influence of Lack of Comprehensive Data on TP Implementation

Table 8 illustrates the distribution of responses from both financial experts' and tax consultants' viewpoints as regards the role of incomplete and/or fragmented data on DB transactions on the performance of TP regulations in Saudi Arabia. In the context of findings' interpretation, a considerable number of both financial experts and tax consultants admit difficulties arising from the absence of complete data about DB transactions. Among the financial experts, 38.89% showed that this is a main problem with the absence of complete data which prevents the effective implementation of TP regulations. Likewise, 58.33% of tax specialists had the same concern. This implies a wide agreement between a large segment of respondents from the two groups on the obstacle resulting from the shortage of data. On the other hand, the survey revealed that a considerable number of participants also had doubts as to how the lack of complete information would affect the process. Among the financial experts, 16.67% believed to be that insufficient data has a negative impact on TP regulation, while 8.33% of the tax consultants had the same opinion. This uncertainty may be caused by several factors, for example, the scarcity of data, the lack of clarity in the regulatory frameworks, or the complexity in assessing the impact correctly. Interestingly, a considerable number of respondents, especially among financial experts, did not find incomplete data as a limiting factor in the effective enforcement of TP regulations. In this case, as many as 44.44% of financial experts and 33.33% of tax consultants agreed. This viewpoint implies that some officers might see the existing data sources as satisfactory and/or that they may have alternative methods to solve TP issues even in the face of limited data.

Table (8): the Influence of Lack of Comprehensive Data on TP Implementation

Response	Financial Experts (%)	Tax Consultants (%)
Yes	38.89	58.33
No	44.44	33.33
Not sure	16.67	8.33

Role of Digitalization in TP Challenges

Table 9 illustrates that both financial experts and tax consultants considered digitalization as one of the crucial factors that contribute to the development of TP challenges for developing countries, with 33.33% of financial experts and 41.67% of tax consultants who held this view. This implies that the participants tend to have the same view on the role of the digitization in making TP problems more severe.. Nonetheless, a fairly number of financial experts (22.22%) hold in this opinion as well, pointing out that there are different views on the role of digitalization in the economy. A small percentage of financial experts (1%), in contrast,

admitted that they were not sure about the role of digitalization, while no tax consultants (0%) conveyed that uncertainty. The assertion thus implies that finance experts' opinion might be more pragmatic than the tax consultants' stance on the issue. Consequently, the figure can be interpreted as different reactions to the issue of digitalization creating TP problems for developing nations. Whilst a notable size of the respondents cites digitalization as either a major or minor magnifier, others consider it not to be a considerable contributor. This dissimilarity of opinions thus reveals the complexity of the issue, therefore, a need to conduct more research, and policy interventions to address the TP complexities in digital era.

Table 9: the Role of Digitalization in TP Challenges

Response	Financial Experts (%)	Tax Consultants (%)
Major exacerbating factor	33.33%	41.67%
Minor exacerbating factor	33.33%)	25%
Insignificant factor	22.22%)	33.33
Not sure	1%	0%

Optimism about Improving TP Regulations

Table 10 illustrates that expert (5.56%) and tax consultants (8.33%) a small percentage expressed no optimism about the possible improvement of TP regulations for digital businesses in Saudi Arabia. This implies that most participants had a positive view of the situation. The majority of those surveyed, which are financial experts and tax consultants (38.89% and 33.33% respectively) reported a middle level of optimism in the expectation of enhancement of TP regulations. Nevertheless, these responses can be interpreted as approval of regulator improvements. A considerable number of respondents, including 27.78% of the financial experts and 33.33% of the tax consultants, showed optimism about the possibility of the improvement of TP regulations. The above implies that not only are the respondents positive but also the result is not as good as they expected. One of the most important findings of the study was that a substantial number of financial experts (27.78%) and tax specialists (25.00%) have an overly optimistic outlook on the influence of TP rules for digital businesses in Saudi Arabia. This kind of answer shows the fact that most of the respondents have the view that positive regulatory development is highly likely to happen soon.

Table 10: Improving TP Regulations

Response	Financial Experts (%)	Tax Consultants (%)
Not optimistic at all	5.56	8.33
Optimistic	38.89	33.33
Moderately optimistic	27.78	33.33
Optimistic	27.78	25.00

5. Discussion and Conclusions

The study aims to investigate the influence of the challenges hinder the effective application of the TP models for digital businesses on the effective tax accounting in the Kingdom of Saudi Arabia. The study uses the structured questionnaire method to gather primary data needed to assess the study hypotheses using the least squared regression models, in addition, the study uses the ‘Cronbach’s Alpha Coefficient’ to evaluate the reliability of the study instrument. To achieve the study aims, the study provided extensive literature review on the development of TP models ranging from traditional models such as cost plus to developed models such as permanent establishment, virtual permanent establishment, value creation, and arm’s length models. The literature review shows that Saudi Arabia aligns its TP models to the international TP models. The results of the first regression model show that the model is statistically significant and the Lack of the comprehensive data and information on DB transactions as the predictor affected the effective implementation of the applicable TP models for DB for tax accounting in Saudi Arabia, however, the impact is small as the adjusted R Squared explains only 17, 7% of the change in the dependent variable. In addition, the results of the second regression model show that the absence of the physical presence of ME and intangible assets as the predictor affected the effectiveness of the applicable TP models for DB for tax accounting in Saudi Arabia as the model is statistically significant and the adjusted R Squared explains only 30% of the change in the dependent variable. It can be concluded that the influence of the stated challenges is small showing how effective the Saudi TP for DB for tax accounting is in avoiding tax evasion despite Saudi Arabia classified as a developing country. On the study’s limitations, the study relied on a case study approach to have deeper understanding of the efficiency and effectiveness of TP systems implemented in the Kingdom. As for the study’s recommendations, the study recommends conducting cross-country studies to include gulf countries that are economically and socially similar, to find the challenges of transfer prices. implementing unified international standards, enhancing international cooperation, and easing access to databases. The study helps in revealing the challenges and the level of effectiveness and efficiency of the TP systems applied in the Kingdom, thus avoiding tax evasion. Alhassan, (2020) said that taxes paid by foreign corporations are higher than taxes paid by domestic companies in Saudi Arabia. That is, the effective application of transfer pricing in Saudi Arabia, which reinforces the validity of the results of the current study, which shows the effectiveness of applicable transfer prices systems in the Kingdom.

References

1. Agba, M. S., Agba, G. E. M., Ettah, G., Enang, A. U., & Ata-Agboni, J. U. (2023). Building a new Nigeria where things work: Meritocracy, pragmatism, and honesty principles as mode of analysis and prescription (MoAP). *Journal of Public Administration, Policy, and Governance Research*, 1(1), 1-12.
2. Ahmedov, I. (2020). The influence of digital economy on international trade. *European Journal of Business and Management Research*, 5(4). <https://www.ejbmr.org/index.php/ejbmr/article/view/389/223>

3. Alhassan, A. F. (2016). Transfer pricing the Case of Saudi Arabia. *Journal of Accounting*, 6(2). <https://zantworldpress.com/wp-content/uploads/2019/12/9.-Ali.pdf>
4. Alhassan, A. F. (2020). The Impact of Tax-Avoidance Measures by the Government on Taxable Income Differential Between Foreign- and Domestic Companies in Saudi Arabia. *Global Journal of Economics & Business*, 2020, Vol 8, Issue 2, p323
5. Altawyan, A., & Wrappe, S. C. (2022). Transfer pricing Disputes in the Kingdom of Saudi Arabia, Part 2: Dispute Resolution Procedures. Ahmed A. Altawyan and Steven C. Wrappe, *Transfer pricing Disputes in the Kingdom of Saudi Arabia, Part, 2*. <https://ssrn.com/abstract=4208475>
6. Altawyan, Ahmed, (2022). Analysis of the Application of Income Tax Law to Income Generated Overseas by Capital Companies Located in the Kingdom of Saudi Arabia (September 13, 2022). *Review of Integrative Business and Economics Research*, Vol. 11(2), 243-248 · Sep 13, 2022, Available at SSRN: <https://ssrn.com/abstract=4218111>
7. Alvik, I, (2011). *Contracting with Sovereignty: State Contracts and International Arbitration*, Bloomsbury Publ'g 2011
8. Apriadi, R., & Monalysa, L. (2021). Tax Avoidance in the Form of Base Erosion and Profit Shifting in Digital Economic Transactions by Multinational Companies. *International Research of Economic and Management Education*, 1(2), 86-93. <https://stebilampung.ac.id/journal/index.php/ireme/article/view/221/162>
9. Aslam, A., and Shah. A. (2020). *Tec (h) tonic Shifts: Taxing the Digital Economy*. IMF Working Paper 20/76. Washington, DC: IMF. <https://www.imf.org/en/Publications/WP/Issues/2020/05/29/Tec-h-tonic-Shifts-Taxing-the-Digital-Economy-49363>
10. Avi-Yonah, R., Kim, Y. R., & Sam, K. (2022). A new framework for digital taxation. *Harv. Int'l LJ*, 63, 279. <https://ssrn.com/abstract=4068928>
11. Bernard, J. T., & Weiner, R. (1990). Multinational corporations, transfer prices, and taxes: Evidence from the US petroleum industry. In *Taxation in the global economy* (pp. 123-160). University of Chicago Press. <https://www.nber.org/system/files/chapters/c7207/c7207.pdf>
12. Boiță, M.; Grigorescu. Constantin, E. (2013). Methods and theories on transfer prices, *Journal of Economics and Business Research*, ISSN: 2068 - 3537, E – ISSN (online) 2069 – 9476, ISSN – L = 2068 – 3537 Year XIX, No. 1, 2013, pp. 197-206
13. Borkowski, S. C. (1997). Transfer pricing concerns developed and developing countries. *The International Journal of Accounting*, 32(3), 321-336. [https://doi.org/10.1016/S0020-7063\(97\)90014-5](https://doi.org/10.1016/S0020-7063(97)90014-5)
14. Chen, C. X., Chen, S., Pan, F., & Wang, Y. (2015). Determinants and consequences of Transfer pricing autonomy: An empirical investigation. *Journal of Management Accounting Research*, 27, 225-259. Doi: 10.2308/jmar-50927, <https://experts.illinois.edu/en/publications/determinants-and-consequences-of-transfer-pricing-autonomy-an-emp>
15. Choi, J. P., Furusawa, T., & Ishikawa, J. (2020). Transfer pricing regulation and tax competition. *Journal of International Economics*, 127, 103367. <https://doi.org/10.1016/j.jinteco.2020.103367>

16. Cynthia C. Galvez, (2013). Necessity, Investor Rights, and State Sovereignty for NAFTA Investment Arbitration, *Cornell Int'l L. J.*, 46, 143 (2013)
17. Doeleman, R. (2023). In Principle, (Im) possible: Harmonizing an EU Arm's Length Principle. *EC Tax Review*, 32(3), 93-102.
18. ECD, Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations (OECD 2010), International Organizations' Documentation.
19. Gaiya, J. I., Gugong, B. K., & Bala, H. (2024). Real earnings management and dividend payout of listed conglomerate firms in Nigeria. *African Banking and Finance Review*
20. Garba, I., Usman, I., & Abubakar, I. A. (2024). An influence of capital structure on the financial performance of listed conglomerate companies in Nigeria. *ILIMI Journal of Arts and Social Sciences*, 1(5), 41-52.
21. Grondona, V. (2019). Transfer pricing concepts and practices of the "sixth method" in transfer pricing. *Perspectives from the Global South*, 53, 978-8131771662.
22. Hani, A. (2020). An outlook on the implementation of transfer pricing legislation in the Kingdom of Saudi Arabia. *Revenue Law Journal*, Vol. 27, No. 1, 2020: [1]-11
23. Harpaz, A. (2021). Taxation of the digital economy: Adapting a twentieth-century tax system to a twenty-first-century economy. *Yale J. Int'l L.*, 46, 57.
<https://doi.org/10.1080/23311975.2021.1907012>
24. Irawan, F., Kinanti, A., & Suhendra, M. (2020). The influence of Transfer pricing and earning management on tax avoidance. *Talent Development & Excellence*, 12(3), 3203-3216.
https://www.researchgate.net/publication/344237805_The_Impact_of_Transfer_Pricing_and_Earning_Management_on_Tax_Avoidance
25. Jakfar, Nuraini, F. (2025). Transfer pricing and Tax Avoidance: A Narrative Review of Global Strategies and Regulatory Challenges. *Sinergi International Journal of Economics*, / Vol. 3 No. 2
26. Jamroży, M., & Majdowski, F. (2022). Permanent establishment in digital business. *Studia Prawno-Ekonomiczne*, 122, 9-35. DOI: <https://doi.org/10.26485/SPE/2022/122/1>
27. John, O. O., Ibrahim, M. K., & Okeh, E. P. (2024). Analyzing the complexities of transfer pricing regulations and their impacts on multinational corporations in Nigeria. *ANUK College of Private Sector Accounting Journal*, 1(2), 79-92. *Journal*, 9(9), 130-142
28. Kalra, A., & Afzal, M. N. I. (2023). Transfer pricing practices in multinational corporations and their effects on developing countries' tax revenue: a systematic literature review. *International Trade, Politics and Development*, 7(3), 172-190. <https://doi.org/10.1108/ITPD-04-2023-0011>
29. Kumar, S., Pandey, N., Lim, W.M., Chatterjee, A.N. and Pandey, N. (2021), "What do we know about transfer pricing? Insights from bibliometric analysis," *Journal of Business Research*, Vol. 134, pp. 275-287, doi: <https://doi.org/10.1016/j.jbusres.2021.05.041>.
30. Michael W. Reisman (2014). *International Arbitration and Sovereignty*, *Arbitration Int'l*, 18(3), 231–239 (2014).
31. Monsenego, J. (2022). *Introduction to transfer pricing*. Kluwer Law International BV.
<https://law-store.wolterskluwer.com/s/product/introduction-to-transfer-pricing-2e/01t0f00000J4TRhAAN>

32. Mporu & Eukeria Wealth, (2022). The Arm's Length Principle: A Panacea or Problem to Regulating Transfer Pricing Transactions by MNEs in Developing Countries. *Eurasian Journal of Business and Management*, Eurasian Publications, vol. 10(2), pages 137-152.
33. Mporu, F. Y., & Wealth, E. (2022). The arm's length principle: a panacea or problem to regulate transfer-pricing transactions by MNEs in developing countries. *Eurasian Journal of Business and Management*, 10(2), 137-152. <https://ideas.repec.org/a/ejn/ejbmr/v10y2022i2p137-152.html>
34. Ogunoye, A. A., Ibitoye, O. J., & Kleynhans, E. P. (2023). Manipulation of transfer prices by multi-national companies in Nigeria. *South African Journal of Economic and Management Sciences*, 26(1), 4657.
35. Organization for Economic Cooperation and Development (2017). OECD Transfer pricing guidelines for multinational enterprises and tax administrations 2017. OECD Publishing. https://www.academia.edu/pdf_pack_preview?topic=&source_work=34937654
36. Organization for Economic Co-operation and Development, (1979). *Transfer pricing and Multinational Enterprises*, Geneva, OECD. Organization for Economic Co-operation and Development, (2001). *Transfer pricing Guidelines for Multinational Enterprises and Tax Administrations*, Geneva, OECD.
37. Petrucci, Raffaele and Buriak, Svitlana, (2018). Addressing the Tax Challenges of the Digitalization of the Economy – A Possible Answer in the Proper Application of the Transfer Pricing Rules? (March 26, 2018). R. Petrucci & S. Buriak, Addressing the Tax Challenges of the Digitalization of the Economy – A Possible Answer in the Proper Application of the Transfer Pricing Rules? 72 Bull. Intl. Taxn. 4a/Special Issue (2018), Journal Articles & Papers IBFD, Available at SSRN: <https://ssrn.com/abstract=3746882>
38. Philip, O.; Adeoye, O.' Reuben. A. T. (2025). international Transfer Pricing and Tax Compliance: A Study of Listed Multinational Corporations in Nigeria. *Journal of Innovations*, Vol. 3, No. 2, 2025.
39. Radaelli, C. M. (1998). Game Theory and institutional entrepreneurship: Transfer pricing and the search for coordination in international tax policy. *Policy Studies Journal*, 26(4), 4. <https://doi.org/10.1111/j.1541-0072.1998.tb01935.x>
40. Richter, W. F. (2024). Residual profit splitting: a theory-based approach to tax multinationals. *International Tax and Public Finance*, 1-21.
41. Salazar, R. J., Wang, J., Rauniar, R., & Wang, X. (2018). A game analysis of MNC CSR in China. *Cogent Business and Management*, 5:1(1), 1409685. <https://doi.org/10.1080/23311975.2017.1409685>
42. Sander, H., Scherer, A. L., & Schmiel, U. (2024). The arm's length principle: Adequate means for taxing multinational corporate groups? *Accounting, Economics, and Law: A Convivium*. <https://doi.org/10.1515/acl-2023-0018>.
43. SAUDI EXECUTIVE BY LAW FOR TP https://zatca.gov.sa/en/HelpCenter/guidelines/Documents/Transfer%20Pricing%20Guidelines_Final_Manual.pdf

44. Shantanu J. Pendse, (2012). International Transfer Pricing: A Review of Non-Tax Outlook. [Social and Behavioral Sciences, Volume 37](#), 2012, Pages 337-343. <https://doi.org/10.1016/j.sbspro.2012.03.299>
45. Sikka, P., & Willmott, H. (2010). The dark side of Transfer pricing its role in tax avoidance and wealth retentiveness. *Critical perspectives on accounting*, 21(4), 342-356. DOI: [10.1016/j.cpa.2010.02.004](https://doi.org/10.1016/j.cpa.2010.02.004)
46. Tom, T. (2023). Challenges and Solutions to Global Digital Firms' Exploitation of Small Economies. *Technium Soc. Sci. J.*, 43, 288. DOI: <https://doi.org/10.47577/tssj.v43i1.8812>
47. Torgler, B. (2003). To evade taxes or not to evade: that is the question. *Journal of Socioeconomics*, 32(3), 283–302. [https://doi.org/10.1016/S1053-5357\(03\)00040-4](https://doi.org/10.1016/S1053-5357(03)00040-4)
48. Turina, A. (2020). The progressive policy shift in the debate on the international tax challenges of the digital economy: A “pretext” for overhaul of the international tax regime? *Computer Law & Security Review*, 36, 105382. <https://doi.org/10.1016/j.clsr.2019.105382>
49. Twesige, D., Gasheja, F., Barayendema, J., & Uwamahoro, A. (2020). Effect of Transfer pricing on profit shifting by multinational companies in developing countries: A case of Rwanda. *Rwandan Economy at the Crossroads of Development: Key Macroeconomic and Microeconomic Perspectives*, 149-167. Volume 292.
50. UN, *Practical Manual on Transfer Pricing* (UN 2013).
51. Vladimir A. Gidirim, (2016). Taxation of Foreign Multinational Enterprises Conducting Business in and with Saudi Arabia. *Bulletin for International Taxation*, 2016 (Volume 70), No. 4
52. Vogele, A., Gonnet, S., & Gottschling, B. (2008). Transfer prices determined by game theory: 1- underlying. In *The bureau of national affairs*.
53. White, J. (2019). Saudi Arabia sets the Gulf standard for TP reform. *International Tax Review*. <https://www.internationaltaxreview.com/article/2a69yvx1bb2vzxzqj2qyo/saudi-arabia-sets-the-gulf-standard-for-tp-reform>
54. Yang, Y., Yang, L., Chen, H., Yang, J., & Fan, C. (2020). Risk factors of consumer switching behavior for cross-border e-commerce mobile platform. *International Journal of Mobile Communications*, 18(6), 641-664.

Appendix: Survey questions

First Hypothesis: The Lack of the comprehensive data and information on digital business transactions challenges the effective implementation of the applicable transfer pricing models for digital business for tax accounting in Saudi Arabia.

Dependent variable

How effective do you perceive the current transfer pricing practices used in addressing the unique characteristics of digital businesses?

- Not effective at all
- Somewhat effective
- Moderately effective

- Very effective

Independent variables

1. What are the main challenges your company faces in implementing transfer pricing regulations?

- Lack of comprehensive data
- Difficulty in determining the arm's length prices
- Absence of the physical presence
- Complexity of digital transactions
- Compliance with evolving regulations
- Other (please specify)

2. What measures has your company taken to address transfer-pricing risks associated with the digital transactions?

- Conducted internal audits
- Hired specialized digital tax consultants
- Implemented transfer pricing software
- Enhanced internal data collection processes
- Established cross-functional transfer pricing teams
- Other (please specify)

3. Do you think the lack of comprehensive data on digital business transactions hinders the effective implementation of transfer pricing regulations in Saudi Arabia?

- Yes
- No
- Not sure

4. In your opinion, how does digitalization contribute to the development of transfer pricing challenges for Saudi Arabia??

- Major contributor
- Minor contributor
- Not a contributor
- Not sure

Second Hypothesis: The absence of the physical presence challenges the effectiveness of the applicable transfer pricing models for digital business for tax accounting in Saudi Arabia.

Dependent variable:

How effective do you perceive the current transfer pricing regulations in addressing the unique characteristics of digital businesses?

- Not effective at all
 - Somewhat effective
 - Moderately effective
 - Very effective independent variables
1. To what extent does your company rely on external consultants for transfer pricing advice?
 - Not at all
 - Occasionally
 - Moderately
 - Heavily
 2. How frequently does your company engage in cross-border transactions?
 - Rarely
 - Occasionally
 - Regularly
 - Frequently
 3. How do you assess the current level of transparency in your company's transfer pricing practices for tax accounting?
 - Very low
 - Low
 - Moderate
 - High
 - Extremely high
 4. How satisfied are you with the existing transfer pricing documentation requirements?
 - Very dissatisfied
 - Dissatisfied
 - Neutral
 - Satisfied
 - Very satisfied

5. How familiar are you with transfer pricing regulations for digital businesses for tax accounting in Saudi Arabia?

- Not familiar at all
- Somewhat - familiar
- Moderately familiar
- Very familiar

6. Have you encountered any challenges related to the absence of physical presence in determining transfer pricing for digital transactions for tax accounting?

- Yes
- No

7. How does the absence of business physical presence affect the accuracy of traditional transfer pricing methods for digital transactions for tax accounting?

- Significantly decreases accuracy
- Slightly decreases accuracy
- Does not affect accuracy
- Increases accuracy
- Not sure

8. How optimistic are you regarding the prospects of improving transfer pricing regulations for digital businesses for tax accounting in Saudi Arabia?

- Not optimistic at all
- Somewhat optimistic
- Moderately optimistic
- Very optimistic