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## Article

# Taxing informal sector through modified taxation: Implementation challenges and overcoming strategies

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## ACCOUNTING, CORPORATE GOVERNANCE & BUSINESS ETHICS | RESEARCH ARTICLE

# Taxing informal sector through modified taxation: Implementation challenges and overcoming strategies

Paul Hammond<sup>1</sup>, Paul Adjei Kwakwa<sup>1,2\*</sup>, Daniel Berko<sup>1</sup> and Edmond Amissah<sup>1</sup>

**Abstract:** The informal sector often poses a measurable challenge to effective domestic revenue mobilization due to its peculiar characteristics. Modified taxation, which is a form of presumptive taxation, has been identified as an innovative way of taxing the informal sector. The study examines some of the possible implementation challenges of tax reform as well as identifying mitigating strategies to overcome the challenges. The best-worst method (BWM) of multi-criteria decision-making was employed in this study. Twenty potential challenges and 12 strategies were identified from the literature. Eight experts were contacted to rank the challenges and strategies for the implementation of the modified taxation. They were made to complete an online questionnaire by rating their preferred criteria over others. A linear BWM solver was used to determine the optimal weights of each category. The perception of tax administration emerged as the best-ranked potential obstacle to the practicability of the tax policy. On the strategy side, building trust in the taxpayers is the key to successful implementation.

**Subjects:** Political Economy; Finance; Business, Management and Accounting;

**Keywords:** modified taxation; informal sector; best-worst method; challenge; strategy

### 1. Introduction

Taxation serves as a pivotal internal mechanism for governments to generate the revenue necessary to fund a variety of government projects. However, developing countries often grapple with the persistent challenge of collecting sufficient taxes to support their crucial developmental initiatives (Besley & Persson, 2014; Wier, 2020), leading to recurrent budget deficits. A significant factor contributing to this challenge is the fact that taxation primarily targets the formal sector, while the larger informal sector frequently evades tax obligations (Hoa, 2019). According to the International Labour Organisation (ILO), the informal sector encompasses “productive activities carried out by individuals and economic units that lack formal arrangements in either law or practice” (ILO, 2021). Schneider (2005) underscores the informal sector’s potential to evade taxes and labels it the “shadow economy.” This includes “legitimate market-based production of goods and services intentionally concealed from public authorities to circumvent income, value-added, or other taxes, as well as social security contributions” (Schneider, 2005, p. 600). Indeed, as Mpofu (2021) points out, the challenge of taxing the informal sector is widely recognised.

The elusive nature of this sector poses a daunting challenge to effective domestic revenue mobilisation in developing nations. Consequently, governments worldwide, particularly in developing countries, face difficulties in formulating a suitable tax system that can effectively rope in the informal sector (Danquah & Osei-Assibey, 2018; Hoa, 2019). Even when appropriate tax policies are crafted, tax administrators often struggle to engage with informal sector participants due to their classification as hard-to-tax entities (Adekoya et al., 2020; Bortey, 2021; Rogan, 2019). An added challenge arises from the lack of reliable income data for informal sector players, hampering the development of comprehensive tax policies. Additionally, the sector's lack of organisation makes enforcing compliance a daunting task, prompting many tax authorities to resort to punitive measures instead of fostering long-term voluntary compliance.

Given the informal sector's considerable significance in the economies of emerging nations, devising mechanisms to encourage voluntary tax compliance within this sector becomes imperative (Amaeshi et al., 2019). For example, in Ghana, Otoo et al. (2011) and Osei-Boateng and Ampratwum (2011) have indicated that 90% and 80% of the workforce respectively as employed in the informal sector. Also, a revelation by Abor and Quartey (2010) and Turkson et al. (2022) as cited in Good Governance Africa (2023) is that about 70% of Ghana's GDP is from the informal sector. However, because the informal sector is largely not part of the tax net Ghana's domestic revenue has been low and insufficient to support national development. According to IFS Ghana (2017) between 2012 and 2015 domestic revenue averaged 20.4% of GDP compared with 27.1% of GDP for sub-Saharan African region.

Like many governments in other countries, the government of Ghana is actively seeking to expand the tax base to encompass the informal sector which is largely untaxed in order to reduce its deficit. In many jurisdictions governments have employed diverse approaches and strategies including standard assessment, occupational grouping taxation, and tax stamps to achieve this objective. Regrettably, these approaches have not proven entirely effective in curbing tax evasion and non-compliance among informal participants (Cunningham & Dibooglu, 2020). As a result, the puzzle of the most effective approach to addressing low tax collection from the informal sector remains unsolved. In the case of Ghana recent efforts to include the informal sector such as the issue of stamp tax and quarterly vehicle income tax have all proven to be insufficient means to rope them into the tax bracket.

To address this worrying issue, scholars and policymakers have proposed several approaches, including modified taxation, as remedies to bolster the informal sector's participation in taxation (Bucci, 2020; Dell'anno, 2022; Schneider, 2005). Modified taxation adopts a presumptive approach, involving a tax based on turnover and a modified cash basis for eligible individuals. Thuronyi (2019) provided some reasons for presumptive techniques. First, they talked about its simplification, particularly in relation to the compliance burden on taxpayers with very low turnover and the corresponding administrative cost of auditing such taxpayers. Moreover, it helps to tackle tax avoidance or evasion. Third, it provides an objective indicator for tax assessment. This leads to an equitable distribution of the tax burden and removes uncertainty in tax administration as the tax base is reliably established. Finally, it encourages taxpayers to keep proper books of account for tax purposes. The taxpayers are motivated to keep records because if they keep proper accounts, they would be taxed on profit as per the conventional income tax principle. However, the absence of proper records results in a presumptive tax that uses turnover as a tax base and eventually leads to higher tax liabilities.

The literature supports the idea that presumptive taxation methods have the potential to be used more intensively in sub-Saharan Africa to broaden the tax base and increase tax revenue in an efficient and equitable manner (Adekoya et al., 2020). These methods include presumptive taxes on imports, withholding schemes, and graduated business licence fees, which have been found to be effective in raising additional tax revenue while maintaining efficiency, equity, and administrative expediency (Moore, 2023). Although Ghana's law has made provision for modified

taxation. The Income Tax Act 2015 (Act 896), second schedule seeks to recommend the assessment of income through modified taxation. However, it is yet to be implemented. There have been opinions by some people on various media platforms for this ACT to be implemented.

Meanwhile, the literature suggests that the implementation of such reforms is likely to face daunting challenges (Amponsah & Adu, 2017; Anamoah, 2019; Asante & Baba, 2011; Dalu et al., 2013) because of the nature of the informal sector. It is imperative for policymakers to be proactive before this law is implemented in Ghana to avoid a failure. The issues that need to be addressed, therefore, are what are the challenges likely to be faced in the implementation of the modified tax law in Ghana? And what strategies can be explored to overcome these challenges? Since these pertinent issues have not been addressed in Ghana's literature and others in the sub region, the current study seeks to explore the possible challenges of implementation of modified tax law in Ghana and to explore strategies to overcome these challenges, leveraging experts' insights through the "best-worst" multi-criteria method. By identifying probable implementation obstacles and proposing mitigation techniques, this study contributes to the literature on taxing the challenging informal sector, enhancing the understanding of effective implementation of modified taxation. Through this analysis, the study seeks to pave the way for more effective taxation strategies that bridge the gap between the formal and informal sectors while ensuring equitable revenue collection.

From the above the study contributes to the taxation literature in two main ways. In the first place it offers evidence from Africa where comparatively research on taxation is understudied. Secondly, it highlights possible challenges likely to be associated with the introduction of modified taxation and how best to address it. Although it focuses on Ghana, other countries in the sub region can take a cue from the findings to shape their tax policies as well. The remainder of the paper proceeds as follows: Section 2 reviews relevant and related previous studies. In Section 3, the data and steps involved in BWM are outlined. Section 4 presents the results of the study. Section 5 discusses the findings, and Section 6 concludes the study with recommendations for future research directions.

## **2. Review of the literature**

### **2.1. Theoretical framework**

The study is underpinned by two main theories: tax compliance theory and institutional theory of taxation

### **2.2. Tax compliance theory**

Tax compliance theory, a framework rooted in the fields of public finance and behavioural economics, seeks to unravel the intricate web of factors influencing individuals' decisions to adhere to their tax obligations (Devos, 2014). It endeavours to shed light on the reasons why some taxpayers willingly and fully comply with tax laws while others resort to tax evasion or avoidance behaviours. This theory delves deep into the psychological, economic, and social underpinnings that drive individuals' choices concerning tax compliance (Nwokoye et al., 2023). According to tax compliance theory, several factors shape tax compliance, including perceptions of the tax system's fairness, the ease of compliance, and the apprehension of detection and punishment.

At the heart of virtually all theoretical work on tax compliance lies the expected utility model (Feldman & Slemrod, 2007). This approach has yielded numerous insights, particularly in the realms of economic deterrence and broader social influence. The classical economic theory of tax compliance postulates that "rational" individuals deliberately weigh the anticipated monetary costs and benefits associated with circumventing the tax system. Additionally, social comparisons of tax balances may cause individuals to exhibit lower levels of compliance when they feel dissatisfied and wish to avoid being perceived as "suckers" (Quesada et al., 2014).

Modified taxation methods can be strategically designed to address these critical factors by simplifying tax laws, reducing tax rates, and providing incentives for participants in the informal sector to transition into the formal sector. Simplifying tax laws involves minimising distinctions across various economic activities and personal characteristics, imposing taxes across a broad base at relatively uniform rates irrespective of income sources or types of expenditure, implementing universal exemptions, deductions, or credits, eliminating redundant provisions, and streamlining the tax filing processes.

Furthermore, lowering tax rates can indirectly simplify tax compliance by diminishing incentives for tax evasion or the search for tax shelters (Joshi et al., 2013). The reduction in tax rates can mitigate the complexities associated with tax planning and avoidance. In essence, modified taxation strategies can contribute to rendering the tax system more transparent, equitable, and user-friendly for both individuals and businesses.

In summary, tax compliance theory serves as a vital framework for understanding the multi-faceted nature of tax compliance decisions. It emphasises the role of fairness, ease of compliance, and the fear of detection in shaping individuals' tax behaviours. Leveraging the expected utility model and adopting modified taxation approaches that simplify tax laws and lower tax rates can enhance tax compliance by making the system more accessible and equitable, ultimately benefiting both governments and taxpayers.

### **2.3. The institutional theory**

The institutional theory of taxation posits a fundamental connection between the effectiveness of a taxation system and the quality of the institutional environment within which it functions. This theory emphasizes that the institutional framework as a whole has a significant impact on the success of taxation efforts beyond just tax rates and regulations. This encompassing framework includes elements such as the rule of law, the quality of tax administration, and the overall governance structure of a nation (Williams, 2020). The institutional theory emphasises that the rules, norms, and regulations that govern societies play a pivotal role in shaping individual and collective behaviour. In the context of taxation, this theory asserts that the structure and implementation of a taxation system are deeply intertwined with a society's institutions (Horodnic, 2018).

When considering modified taxation approaches, institutional theory suggests that strategic adjustments to tax policies should not occur in isolation from the institutional context. Instead, these adjustments should be designed to align with and strengthen the institutional framework, ultimately fostering tax compliance, transparency, and efficient revenue collection (Williams & Horodnic, 2016). In the context of modified taxation, adhering to the principles of institutional theory involves tailoring tax policies and administrative practices to enhance the institutional environment within which taxation operates. This approach acknowledges that tax reform efforts must consider the broader societal context to be truly effective and sustainable.

In essence, the institutional theory of taxation serves as a critical reminder that taxation is not an isolated facet of economic policy but an integral part of a broader societal context. When implementing modified taxation strategies, it is essential to consider the intricate relationship between tax policies and the institutions that underpin them. Aligning these elements can lead to more effective, equitable, and responsive taxation systems, benefiting both governments and taxpayers.

### **2.4. General principles of taxation**

Tax is a mandatory payment or contribution made by a person to the government for which there is no direct expectation of an equal return (Otabil, 2016). The objectives of taxation, among others, are to reduce the inequalities of income and wealth; provide incentives for capital formation in the private sector; and restrain consumption of some categories of goods and services in order to keep domestic inflationary pressures in check (Pechman, 2019). According to Bekele and Devi (2014), every tax system has a vision, mission, and set of principles under which it operates. The vision

relates to the purpose of taxation. The forms and methods of tax administration, as well as the collection and enforcement of the laws, constitute the mission. The principles are the values that underlie the tax system within the perceived purpose of taxation. A good tax system, therefore, is one that is designed on the basis of an appropriate set of principles.

According to Crawford and Spivack (2017), tax laws should not discriminate, and there should be equality before the law. If this principle is interpreted in terms of the disutility that the taxpayers suffer by paying taxes (Khoshyaran, 2017), it follows that the tax should impose equal marginal disutility upon every taxpayer. Those who earn more should be made to pay more, and similarly, people who receive equal benefits should contribute equally to the development of the state (Ali-Nakyea, 2008; Lindsay, 2016). Information such as the tax rate, tax base, time of payment, quantity of payment, and manner of payment of tax should be made known to the taxpayer (Lavrenchuk, 2013; Ngwenya et al., 2014). The taxpayers should not be subject to the arbitrariness and discretion of tax officials, since that breeds corrupt tax administration. According to Bentley (2015), the tax laws should be clear and plain to the contributor so that taxpayers can forecast the tax consequences in advance of any transaction or engagement by knowing what, when, where, and how the tax is to be accounted for. Moreover, there should be transparency and visibility in the design and implementation of the tax rules (Bowler-Smith, 2017).

The taxpayer's interest must be considered when designing tax policies and reforms (Hedau, 2018). The mode and timing of tax payment should be, so far as practicable, convenient to the taxpayers. An unnecessary burden on taxpayers should be avoided; otherwise, vicarious harm may result. Bekele and Devi (2014) posit that every tax ought to be fashioned to both take out and keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state. If the tax is more difficult to pay, it is likely that it will be evaded. There is a cost associated with the collection of every tax. The cost of collecting taxes should be minimised as much as possible. It would be useless to impose taxes that are too widespread and difficult to administer (Torgler & Schneider, 2009). Taxes generally entail an unnecessary burden on society in the form of additional expenses. People's productive effort suffers when there is waste in tax collection and administration (Keen & Slemrod, 2017). Realising that the taxes collected are being wasted, taxpayers also tend to evade them. Compliance costs for taxpayers and administrative costs for the tax authorities should be minimised as far as possible (Alley & Bentley, 2005).

### **2.5. Modified taxation**

Modified taxation, also called presumptive taxation, is a method of taxation in which the desired tax base is not measured directly or indirectly, but instead is inferred from some simple indicators that are easier to measure than the base itself (Alm, 2016; Meshesha, 2015). Ahmad and Stern (1991, p. 276) defined presumptive taxation as "a number of procedures under which the 'desired' base for taxation (direct or indirect) is not itself measured but is inferred from some simple indicators that are easier to measure than the base itself." Presumptive taxation can be used as a posterior tax tool, whereby it provides supplementary information in dealing with litigation, accounting errors, and fraud (Martins, 2019). It can also be employed as an aprioristic tax design to rope in hard-to-tax sectors such as the informal sector (Martins & Sa, 2018). The latter category includes modified taxation, in which the tax authority determines the tax basis. The procedure adopts a methodology for assessing tax liability that is an alternative to the regular method used to calculate chargeable income and tax base (Bucci, 2020). The income of the taxpayer is presumed by using information on variables different from the standard assessment, which is readily accessible to tax authorities. The tax base may include sales or turnover, cash received, modified cash transactions, property, mileage, floor size, lump sum, and installment payments (Bucci, 2020).

### **2.6. Implementation challenges of modified taxation**

Alm (2019) asserts that the legal complexity and administrative practice, coupled with the lack of a culture of voluntary compliance, often provide strong incentives for small businesses and the self-employed populace to operate outside the prescribed tax system (Awasthi & Engelschalk,

2018). The abysmal contribution of the informal sector to national development can be understood from its peculiar features. The underlying characteristics of the sector that make it difficult to tax include low registration, predominant cash transactions, poor or lack of record-keeping, high collection costs, loose barriers to entry, and so on (Abor et al., 2019; Adu & Amponsah, 2017; Anamoah, 2019; Ofori, 2009; Slemrod & Weber, 2012). Awasthi and Engelschalk (2018) assert that the legal complexity and administrative bureaucracy, coupled with the lack of enforcement of voluntary compliance, usually serve as a strong motivation for small businesses and their owners to operate outside the prescribed tax regime. As a result of these, the informal sector engages in all sorts of tax malpractices, from non-declaration of income to false declarations of income (Jenkins, 2018).

As a result, any attempt to implement a tax system that targets the informal sector is bound to fail. These challenges may include the complexity of tax law leading to poor understanding of tax laws, poor knowledge of the basic reasons for paying tax, a lack of proper keeping of accounting records, and a culture of tax evasion and avoidance (Cvrlje, 2015; Mumford, 2015). The problem of non-compliance, which is a big issue in implementing any tax reform, is also bound to occur. There is a possibility of taxpayers exhibiting the willingness to evade and avoid paying taxes (Aliyu & Sambo, 2016; Saidu & Dauda, 2014). Other potential impediments include high taxpayer mobility, which makes traceability difficult; a wide geographical spread and a large number of small enterprises, which makes effective monitoring of their activities difficult; multiple taxation; corruption on the part of tax officials; and a lack of an adequate database on targeted taxpayers (Mwanza, 2015).

### **2.7. Mitigating strategies**

Resistance to tax reforms is always expected, but success in implementation demands well-crafted strategies. Studies have proven that traditional approaches are not effective. Focusing on non-pecuniary enforcers of tax compliance, such as imprisonments, is counterproductive; rather, the policies associated with reforms and building fiscal contracts produce better results (Sebele-Mpofu, 2021). Reforms firmly rooted in social norms, ethics, and views of equity, reciprocity, fairness, and accountability of tax systems tend to catapult successful implementation. Additionally, there is a need to reduce the costs of collection and strengthen the probable benefits of validation, from improved security to new economic opportunities. More importantly, achieving successful implementation requires political support from political leaders, tax officials, and targeted taxpayers (Fjeldstad et al., 2018). As noted by Kiprotich (2016) and LeFevre (2016), the taxation system that targets the informal sector will achieve its purpose if it incorporates the principles of fairness, equity, convenience, certainty, and economy.

Prichard et al. (2019) categorised the strategies for successful implementation of tax reform into three broad headings: trust, facilitation, and enforcement. First, trust is assumed when taxpayers have a stronger motivation and intrinsic preparedness to pay, whether this motivation stems from a belief that taxation is fair or from a firm belief that taxes will be used to benefit the general public (Ya'u & Saad, 2019). Trust and the perception of tax fairness and corruption play a crucial role in achieving tax compliance (Güzel et al., 2019; Lois et al., 2019). Trust in tax reform would be attained through (a) tax systems that are competently and fairly planned and managed (fairness); (b) burdens are distributed equitably and everybody pays their dues (equity); (c) tax revenues will be converted into reciprocal publicly owned goods and services (reciprocity); and (d) the government overseeing those tax reforms renders an account to taxpayers (accountability) (Prichard et al., 2019). Trust is dependent on how taxpayers perceive inherent fairness, confidence in political conditions, institutional quality, and delivery of public services, which collectively promote high tax morale (Martinez-Vazquez, 2021).

Additionally, facilitation has to do with the ease and simplicity of understanding and complying with the tax laws. In other words, when the tax system is reasonably easy and the cost to comply is also low, The complexity of tax law accounts for the disincentives to taxpayers' actions and



compliance (Ishola et al., 2020). To enhance the facilitation of the system, there is a need to (a) simplify the tax system and related reporting requirements (Deyganto, 2018; Inasius, 2019); (b) ensure taxpayers have easy access to information about tax liabilities (Prichard et al., 2019); (c) grant easy access to assistance and advice; (d) adopt simple methods of payment of the taxes such as online, through banks, and SMS; and (e) reduce in-person interactions with tax officials (Deyganto, 2018; Inasius, 2019; Prichard et al., 2019).

Finally, enforcement, on the other hand, has to do with the likelihood of detection of defaulters and the severity of punishment and penalties for non-compliance. If the penalty for noncompliance is calamitous, it becomes disincentive for taxpayers to evade tax (Raskolnikov, 2006). Prichard et al. (2019) say that enforcement can be improved by taking steps like investing in building more assessment and auditing capabilities, putting in place new information technology (IT) systems that make it harder to avoid paying, improving collection methods, trying to get more third-party information, and making policy changes that make it harder to avoid paying. There should, therefore, be measures put in place to improve the monitoring of taxpayers and to enhance tax collectors' outputs (Radae & Sekhon, 2017). Improving access to information as well as the enactment of penalties and fines to scare perpetrators will enhance enforcement. Lastly, expanding the capacity of the audit, as there are deliberate actions to reduce opportunities for taxpayers to evade and avoid taxes, is also critical to ensure smooth implementation.

### 3. Data and methods

#### 3.1. Data

The study engaged eight experts with different backgrounds, profiles, and experiences. Online questionnaires were sent to these experts, and all eight completed the questionnaires. The decision to use an eight-person sample is based on the recommendations of Bai et al. (2017) and Kusi-Sarpong et al. (2019), who state that most multi-criteria decision-making studies use between four and ten people. Therefore, a sample size of eight high-quality and relevant decision-makers was within the range and sufficient to produce trustworthy outcomes. The experts have in-depth knowledge of different fields and a minimum of five years of working experience. The selection was done purposefully in order to achieve homogeneity so that the result could be generalised. The details about these eight experts are documented in Table 1.

#### 3.2. Data analysis

The approach used in this research is a two-phase multi-case study to identify the implementation challenges of taxation reforms targeted at the informal sector. The first phase involves the use of a thorough review of the literature to identify the critical implementation challenges of the tax system.

**Table 1. Details about experts**

Expert	Expertise	Experience (Years)	Professional Background
Expert 1	Accounting	8	CA
Expert 2	Accounting	10	ACCA
Expert 3	Taxation	8	CITG
Expert 4	Auditing	9	CA
Expert 5	Finance	7	CIMA
Expert 6	Accounting	6	ACCA
Expert 7	Taxation	12	CITG
Expert 8	Accounting	10	CA

Note: CA—Chartered Accountant, ACCA—Association of Certified Chartered Accountant, CITG—Chartered Institute of Taxation, Ghana, member, Chartered Institute of Management Accountants, member.

The next step entails the application of the “Best Worst Method” (BWM) (Rezaei, 2015, 2016) to evaluate and rank the implementation challenges of the reform. The weights of the key challenges are used to rank them. The same procedures were used to identify and prioritise mitigating strategies for the successful implementation of a taxation system targeting the informal sector.

The study adopted the BWM pioneered by Rezaei (2015, 2016) because it is one of the most current and resourceful multi-criteria decision analysis (MCDA) techniques used for determining criteria weights. It has advantages over other commonly used MCDA methods in that it requires relatively fewer pairwise comparisons for the same number of criteria and provides more consistent results. BWM has recently been successfully applied in various areas, including accounting and auditing (Hammond & Amissah, 2022; Muscettola, 2015).

The procedure for BWM as outlined by (Rezaei, 2015, 2016) is reproduced below (the decision-makers perform the first four steps):

*Step 1:* Identify a list of relevant criteria. In this step, consideration is given to the criteria ( $c_1, c_2, \dots, c_n$ ) that should be used to make a decision. In this case, the possible implementation challenges and overcoming strategies of modified taxation.

*Step 2:* Choose the best (B) (the most important, most desirable) and worst (W) (least important, least desirable) criteria from the set of criteria.

*Step 3:* Using a scale of 1 to 9, every expert determines the preference of the best criterion over all other criteria to form a pairwise comparison between the best criterion (B) and all other criteria. This will result in a vector

$$A_B = (a_{B1}, a_{B2}, \dots, a_{Bn}),$$

where  $a_{Bj}$  represents the preference of B over j and  $a_{BB} = 1$ .

*Step 4:* Similar to the above, each of the decision-makers gives pairwise comparison scores of all other criteria with the worst criterion (W). This will also result in a vector

$$A_W = (a_{1W}, a_{2W}, \dots, a_{nW})^T.$$

where  $a_{jW}$  represents the preference of j over W and  $a_{WW} = 1$ .

*Step 5:* Next is to obtain the optimized weights ( $w_1^*, w_2^*, \dots, w_n^*$ ) for all criteria.

That is, the weights of the criteria are determined to minimize the greatest absolute difference for all j with respect to  $\{|w_B - a_{Bj}w_j|, |w_j - a_{jW}w_w|\}$ . The following minimax model will be obtained:

$$\min \max \left\{ \left| \frac{w_B}{w_j} - a_{Bj} \right|, \left| \frac{w_j}{w_w} - a_{jW} \right| \right\}$$

s.t.

$$\sum_{j=1}^n w_j = 1, w_j \geq 0, \text{ for all } j \tag{1}$$

Model (1) is transformed to a linear model and is indicated as:

$$\min \xi^L$$

$$\frac{W_a}{W_j} - a_{Bj} \leq \xi \text{ for all } j$$

$$\frac{W_j}{W_w} - a_{Wj} \leq \xi, \text{ for all } j$$

$$\begin{aligned} \sum W_j &= 1 \\ W_j &\geq 0 \text{ for all } j \end{aligned} \tag{2}$$

Model (2) can be solved to obtain the optimal weights ( $w_1^*, w_2^*, \dots, w_n^*$ ) and optimal value  $\xi^{L*}$ . The consistency increases as ( $\xi^{L*}$ ) approaches zero, comparisons become more reliable (Rezaei, 2016). The global weights of each criterion are obtained by multiplying the local weights of both main- and sub-criteria. The next step is to compute the overall score of alternatives using the additive value function (Bell et al., 1977)

$$V_1 = \sum_j^n 1w_j u_{ij} \tag{3}$$

where  $i$  is the index of any alternative,  $u_{ij}$  is the normalization score of option  $i$  with respect to criterion  $j$ . The value of  $u_{ij}$  can be determined by using equations (4) and (5), where equation (4) is used for positive criteria (for benefit criteria/whose criteria value we want to increase) and equation (5) is used for negative criteria (for cost criteria/whose criteria values we want to decrease).

$$u_{ij} = \frac{x_{ij}}{\sum_i x_{ij}} \text{ for all } j \tag{4}$$

or

$$u_{ij} = \frac{\frac{1}{x_{ij}}}{\sum_i \frac{1}{x_{ij}}} \text{ for all } j \tag{5}$$

where  $x_{ij}$  is the actual score of option  $i$  for criterion  $j$ .

## 4. Presentation of results

### 4.1. Potential implementation challenges

This phase involves finalizing and categorizing the challenges identified during the literature review. After a thorough review of the literature, a list of 20 potential challenges was recognised and grouped into four main categories. Similarly, 12 overcoming strategies were identified and categorised into three main groups. The potential challenges and overcoming strategies are presented in Tables 2 and 3, respectively.

Once the challenges and strategies were identified and confirmed through a review of the literature and after several panel discussions with experts, the next step was to rank them. Following the BWM procedure, all experts were asked to identify the most likely (best) and least likely (worst) likely challenges and mitigating strategies among the main categories as well as the sub-categories. The experts were, in addition, requested to rate best-to-others and others-to-worst from among the main categories as well as the sub-categories, respectively, by applying a scale of 1–9. The pairwise comparisons for the main potential challenges and strategies for all eight participants are shown in Tables 4(a,b) and Tables 5(a,b). The pairwise comparisons for all sub-categories are presented in Appendix A (Tables A1–A7).

Next, applying Equation (2) and pairwise scores attained for all categories of possible challenges of modified taxation, the weights of each of the categories are calculated using a linear Chebyshev BWM solver. The detailed weights of each respondent as well as the consistency ( $\xi^L$ ) are provided

**Table 2. Implementation challenges**

Main Criteria	Sub-Criteria	Description	Supporting Literature
Non-compliance (NC)	Moral obligation (NC1)	Poor knowledge of the basic reason for paying tax.	Dube (2014); Joshi et al. (2014)
	Inequality of tax system (NC2)	The belief is that modified taxation will not be fair to the taxpayer.	Gerger et al. (2014)
	Culture of tax evasion and avoidance (NC3)	The inherent habit of a taxpayer to evade and avoid tax payment	Aliyu & Sambo (2016); Saidu & Dauda (2014)
	Corruption perception (NC4)	The perception of misapplication and misuse of tax revenue by tax officials.	Güzel et al. (2019); Inasius, (2019)
	Multiple taxation perception (NC5)	The possibility of resisting payment is due to the perception of paying multiple taxes on the same income.	Adebisi & Gbegi, (2013); Nangih & Dick (2018)
Complexity of tax law (CL)	Tax knowledge (CL1)	The taxpayers find it difficult to understand the tax law and its application.	Mwanza, (2015); Budak and James (2018).
	Inclusion and exemption (CL2)	The confusion about those who fall under the modified tax law	Mwanza (2015); Budak and James (2018).
	Ambiguity and uncertainties (CL3)	The law may have many interpretations.	Raaphorst, (2018)
	Frequent change of tax law (CL4)	The tax laws are frequently amended which renders well-known laws obsolete	Givati (2009).
	Confusing Tax rulings (CL5)	The rulings on the tax cases are numerous and mostly confusing	Mwanza (2015); Budak and James (2018).
	Difficulty with the exceptions rules (CL6)	The exception rules are too many	Cvrilje, (2015); Mumford (2015).
Accounting irregularities and Tax aggressiveness (AT)	Keeping of multiple books (AT1)	The taxpayer may keep different recordings in order to evade tax.	Hashim et al. (2016) & Putri et al. (2018)
	Under-estimation of income (AT2)	The taxpayer may suppress revenue by either not recording or reducing the amount involved.	Hashim et al. (2016); Putri et al. (2020)
	Recording keeping details (AT3)	The demand to keep specific accounts will be a challenge to the taxpayer	Hashim et al. (2016); Putri et al. (2020)
	Improper filing of tax returns (AT4)	The taxpayer may not be able to fill returns properly	Hashim et al. (2016); Putri et al. (2020)

(Continued)

Main Criteria	Sub-Criteria	Description	Supporting Literature
Characteristics of taxpayers (CT)	Unregistered taxpayers (CT1)	Many of the targeted groups have not registered with tax authorities	Olaoye et al. (2017)
	Poor recording keeping (CT2)	The informal sector players do not keep proper books of accounts	Fjeldstad et al. (2018).
	Cash transactions (CT3)	Most of their transactions are cash-based.	Fjeldstad and Heggstad (2012)
	Wide geographical spread (CT4)	The taxpayers are widely dispersed and a large number of small enterprises make it difficult to monitor their operations effectively	Fjeldstad and Heggstad (2012); Maritim (2020)
	High mobility of taxpayers (CT5)	The frequent relocation of targeted groups in the informal sector thus renders traceability problematic.	Maritim, (2020)

in Tables 6(a,b) for the main challenges and strategies, respectively. The detailed weights of each decision-maker of the sub-criteria are shown in the Appendix A (Tables A8–A14)

From Tables 6(a-b), the mean consistency rate ( $\xi^{L^*}$ ) of both rankings is close to zero ( $\xi_{(\text{challenge})} = 0.094$  and  $\xi_{(\text{strategies})} = 0.101$ ). The fact that the consistency indicator is approximately zero indicates that the comparisons made have high consistency and are reliable (Rezaei, 2016).

The final weights and ranking of the challenges and strategies for successful implementation of modified taxation are presented in Tables 7(a-b), respectively. The global weight for each sub-criterion represents the product of the local weight of that sub-criterion and the weight of its parent main criterion.

The challenge of non-compliance on the part of taxpayers had the highest weight ( $w = 0.345$ ). This indicates that most of the participants in the informal sector are likely to default on paying the modified tax when it is introduced. The next probable challenge is the complexity of tax laws ( $w = 0.307$ ). The study shows that taxpayers are likely to have difficulty understanding the principles of modified taxation. Accounting irregularities and tax aggressiveness, on the other hand, were considered the least threatening categories. At the sub-criteria level, perceived corrupt behaviour by tax authorities may be the major impediment to the successful implementation of modified taxation. The next-ranked potential challenge is tax knowledge. While record-keeping details are the least likely issue, ranking twentieth on a global weighting scale.

To overcome the possible challenges of introducing modified taxation in any economy, trust in the tax system amassed the largest weight ( $w = 0.460$ ). This indicates that players in the informal sector would be ready to embrace the presumptive measure if they had confidence in the system. The least weighted was enforcement, indicating that punitive measures should be the last resort to combat the implementation hurdles. Similarly, at the sub-category level, equity, fairness, and simplification were ranked first, second, and third, respectively.

**Table 3. Overcoming strategies**

Main Category	Sub-category	Description	Supporting literature
Trust (T)	Fairness (T1)	The tax system is fairly and competently designed and administered.	Güzel et al. (2019); Lois et al., (2019); Martinez-Vazquez, (2021); Prichard et al. (2019)
	Equity (T2)	The tax burdens are distributed equitably, and everybody pays their share.	
	Reciprocity (T3)	The belief that tax revenues would be converted into reciprocal publicly provided goods and services.	
	Accountability (T4)	The government will be accountable and transparent to taxpayers.	
Facilitation (F)	Simplification (F1)	The tax law and related reporting requirements should be simplified.	Deyganto, (2018); Frankel et al. (2002); Prichard et al. (2019)
	Accessibility (F2)	Let taxpayers have easy access to information about tax liabilities.	
	Support service (F3)	Provide access to support and advice to taxpayers.	
	Payment outlets (F4)	Make a payment of taxes simple methods such as online, through banks and SMS.	
	Digitization (F5)	Minimise in-person interactions with tax officials.	
Enforcement (E)	Auditing (E1)	Under rigorous and random auditing of taxpayers and expanding the capacity of the auditing unit.	Radae & Sekhon (2017); Raskolnikov (2006)
	Penalties (E2)	Institution of deterring penalties and fines for non-compliance.	
	Third-party information (E3)	Getting access to information of the taxpayer through the third party.	

## 5. Discussion



This study sought to identify potential challenges in implementing taxing informal sectors through modified taxation and to propose strategies to overcome the challenges for smooth implementation of the policy. The review of the copious literature revealed 20 significant potential implementation challenges, which were further grouped into four main categories. Eight experts with diverse backgrounds were sampled to analyse and select the most likely obstacles to affect the implementation of modified taxation. They also chose the least important criteria from the list provided and again ranked the challenges in order of preference for the best and worst criteria.

In the ranking of challenges according to weights, non-compliance was found to be the most likely challenge category that may impede the implementation of modified taxation. This is not strange, because every economic unit tries as much as possible to find ways of reducing or

**Table 4a. Pairwise comparison of main criteria (challenges) – Best to Others**

Experts	Best Criterion	Best to Other criteria			
		NC	CL	AT	CT
Expert 1	Non-compliance (NC)	1	5	8	3
Expert 2	Complexity of tax law (CL)	2	1	6	3
Expert 3	Complexity of tax law (CL)	2	1	3	4
Expert 4	Characteristics of taxpayers (CT)	2	5	9	1
Expert 5	Non-compliance (NC)	1	4	7	3
Expert 6	Complexity of tax law (CL)	5	1	3	2
Expert 7	Complexity of tax law (CL)	4	1	5	9
Expert 8	Non-compliance (NC)	1	8	2	3

**Table 4b. Pairwise comparison of main criteria (main challenges) – others to Worst**

Experts 	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Expert 7	Expert 8
<b>Worst Criterion </b>	AT	AT	CT	AT	AT	NC	CT	CL
Non-compliance (NC)	6	5	7	4	6	1	7	8
Complexity of tax law (CL)	2	9	8	3	2	5	9	1
Accounting irregularities and Tax aggressiveness (AT)	1	1	5	1	1	2	4	6
Characteristics of taxpayers (CT)	5	3	1	8	3	3	1	5

avoiding tax payments. This finding supports previous works (e.g., Aliyu & Sambo, 2016; Saidu & Dauda, 2014), which indicated that individuals have inherent tendencies to evade and avoid tax payments. It is interesting to note that out of the 20 potential sub-challenges ranked, corruption perception emerged as the overarching threat to the implementation of modified taxation. Fjeldstad (2005) stated that corruption in tax administration is prevalent and inimical to revenue collection worldwide. People are hostile to tax payments because they perceive that the revenue from taxes might not be used for the intended purpose. This perception fuels numerous tax evasion mechanisms, including under-reporting and concealment of income to avoid tax payments. This perception accentuates the assertion by Schneider (2005) that the informal sector as a “shadow economy” is characterised by practices that deliberately conceal their revenue from the public authorities to avoid tax payments.

The rating of strategies indicates that building trust with the taxpayers about the efficient and judicious use of tax revenue is the best strategy to be adopted. Tax law enforcement and the institutionalisation of tax penalties should be the last things on your mind. Trust is built on how taxpayers perceive inherent fairness, confidence in political conditions, institutional quality and

**Table 5a. Pairwise comparison of main criteria (main strategies) – Best to Others**

Experts	Best Criterion	Best to Other criteria		
		T	F	E
Expert 1	Trust (T)	1	2	3
Expert 2	Trust (T)	1	3	9
Expert 3	Trust (T)	1	3	5
Expert 4	Facilitation (F)	2	1	7
Expert 5	Facilitation (F)	3	1	9
Expert 6	Trust (T)	1	5	3
Expert 7	Facilitation (F)	2	1	3
Expert 8	Enforcement (E)	3	5	1

**Table 5b. Pairwise comparison of main criteria (main strategies) – others to Worst**

Experts →	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Expert 7	Expert 8
<b>Worst Criterion →</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>E</b>	<b>F</b>	<b>E</b>	<b>F</b>
Trust (T)	3	9	5	5	3	5	2	2
Facilitation (F)	2	5	2	7	4	1	4	1
Enforcement (E)	1	1	1	1	1	4	1	3

**Table 6a. Optimal weights (main challenges)**

	NC	CL	AT	CT	$\xi^L$
Expert 1	0.560	0.138	0.072	0.230	0.129
Expert 2	0.281	0.469	0.063	0.188	0.094
Expert 3	0.300	0.433	0.200	0.067	0.167
Expert 4	0.294	0.118	0.059	0.529	0.059
Expert 5	0.559	0.153	0.085	0.203	0.051
Expert 6	0.092	0.485	0.169	0.254	0.023
Expert 7	0.191	0.606	0.153	0.050	0.158
Expert 8	0.485	0.052	0.278	0.186	0.072
<b>MEAN</b>	<b>0.345</b>	<b>0.307</b>	<b>0.135</b>	<b>0.213</b>	<b>0.094</b>

**Table 6b. Optimal weights (main strategies)**

	T	F	E	$\xi^L$
Expert 1	0.542	0.292	0.167	0.042
Expert 2	0.680	0.253	0.067	0.080
Expert 3	0.650	0.225	0.125	0.025
Expert 4	0.327	0.596	0.077	0.058
Expert 5	0.286	0.619	0.095	0.238
Expert 6	0.640	0.100	0.260	0.140
Expert 7	0.308	0.538	0.154	0.077
Expert 8	0.250	0.150	0.600	0.150
<b>MEAN</b>	<b>0.460</b>	<b>0.347</b>	<b>0.193</b>	<b>0.101</b>



**Table 7a. Criteria weights and ranking (potential challenges)**

Main Criteria	Weight	Sub-Criteria	Local weight	Global weight	Rank
Non-compliance (NC)	0.345	Moral obligation (NC1)	0.180	0.062	5
		Inequality of tax system (NC2)	0.182	0.063	3
		Culture of tax evasion and avoidance (NC3)	0.151	0.052	7
		Corruption perception (NC4)	0.345	0.119	1
		Multiple taxation perception (NC5)	0.142	0.049	10
Complexity of tax law (CL)	0.307	Tax knowledge (CL1)	0.218	0.067	2
		Inclusion and exemption (CL2)	0.172	0.053	6
		Ambiguity and uncertainties (CL3)	0.160	0.049	9
		Frequent change of tax law (CL4)	0.204	0.063	4
		Confusing Tax rulings (CL5)	0.082	0.025	19
		Difficulty with the exceptions rules (CL6)	0.163	0.050	8
Accounting irregularities and Tax aggressiveness (AT)	0.135	Keeping of multiple books (AT1)	0.279	0.038	16
		Under-estimation of income (AT2)	0.337	0.045	13
		Recording keeping details (AT3)	0.162	0.022	20
		Improper filing of tax returns (AT4)	0.223	0.030	18
Characteristics of taxpayers (CT)	0.213	Unregistered taxpayers (CT1)	0.161	0.034	17
		Poor recording keeping (CT2)	0.225	0.048	12
		Cash transactions (CT3)	0.190	0.040	15
		Wide geographical spread (CT4)	0.195	0.042	14
		High mobility of taxpayers (CT5)	0.228	0.049	11

**Table 7b. Criteria weights and ranking (Strategies)**

Main Criteria	Weight	Sub-Criteria	Local weight	Global weight	Rank
Trust (T)	0.460	Fairness (T1)	0.265	0.122	2
		Equity (T2)	0.367	0.169	1
		Reciprocity (T3)	0.193	0.089	4
		Accountability (T4)	0.176	0.081	5
Facilitation (F)	0.347	Simplification (F1)	0.347	0.120	3
		Accessibility (F2)	0.180	0.063	9
		Support service (F3)	0.193	0.067	8
		Payment outlets (F4)	0.103	0.036	12
		Digitization (F5)	0.178	0.062	10
Enforcement (E)	0.193	Auditing (E1)	0.413	0.080	6
		Penalties (E2)	0.350	0.067	7
		Third-party information (E3)	0.238	0.046	11

delivery of public services, and governance; collectively, these factors promote high tax morale (Martinez-Vazquez, 2021). The result is consistent with the findings of Güzel et al. (2019) and Inasius (2019) that people are willing to pay taxes if the tax system is justifiable, equitable, fair, and free from corrupt practices. It is not surprising that equity, fairness, and simplification of modified taxation occupied the apex of the strategies, respectively. These are the three long-tested tenets of taxation that need to be emphasised to enhance the practicability and success of modified taxation.

## 6. Conclusion

Widening the tax net to capture more taxpayers including players in the informal sector is one of the objectives of any tax administration worldwide. Modified taxation, which is a form of presumptive taxation, uses the non-conventional approach to tax “hard-to-reach” individuals. The implementation of modified taxation is considered the panacea to compliance and revenue shortage problems. It is aimed at simplifying tax revenue collection and inducing taxpayers to comply voluntarily, which can have several implications on the overall tax system, leading to higher levels of equity and fairness in tax administration (Bucci, 2020).

Implementation of such a policy always comes with many challenges. The study identified 20 potential challenges of implementing the modified taxation and 12 strategies that can be employed to mitigate the effect. Using a linear BWM solver, the research recognised perceived corruption by tax administrators and government officials as the major factor that can hinder the successful implementation of tax reform. A low level of tax education and understanding as well as the perceived inequality of the tax system may contribute to the failure of policy implementation. In order to succeed, the study revealed that ensuring trust in the tax administration by sticking to equity and fairness canons of taxation with simplification in the tax law and its interpretation will contribute immensely to the successful implementation of the modified tax reform.

The study’s finding that perceived corruption is a significant impediment to the implementation of tax reform highlights the necessity for governments to prioritise and strengthen anti-corruption measures within tax administrations and government agencies. This includes instituting transparent reporting mechanisms, providing protection for whistle-blowers, and providing tax officials

with regular ethical training programmes. Governments can promote greater compliance and revenue collection by addressing corruption, thereby fostering greater trust and integrity in tax administration. Moreover, recognizing the importance of low tax education levels, practical implications include government investment in educational initiatives aimed at improving taxpayers' understanding of the tax system. This could involve the development of user-friendly online resources, conducting tax literacy workshops, and launching educational campaigns to increase awareness and knowledge of tax obligations among the general population. Enhanced tax education can lead to more informed and compliant taxpayers. Theoretically, the findings underscore the interplay between perceived corruption, equity, and understanding of tax laws. This insight aligns with both the tax compliance theory and the institutional theory of taxation. It underscores the significance of fairness and trust as determinants of tax compliance, while also highlighting the role of institutional factors in shaping successful policy implementation. The implication is that modified tax laws should be made simple, fair and equitable applied to the taxpayers to encourage compliance.

Future studies can focus on sector response to modified taxation, the appropriateness of the modified tax base, and comparative analysis of revenue generation of conventional methods and modified taxation. Moreover, researchers can, in the future, look at the various types of presumptive taxes and the ramifications on sector-specific and the economy as a whole. Lastly, other methods such as nonlinear BWM, Fuzzy BWM and Bayesian BWM can be employed in future studies to bring different outlooks to the study.

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**Appendix A**  
 Sub-Categories of Potential Challenges

**Table A1. Non-compliance (NC)**

Experts	Best Criterion	Best to Other criteria				
		NC1	NC2	NC3	NC4	NC5
Expert 1	NC3	8	2	1	3	5
Expert 2	NC4	2	7	4	1	3
Expert 3	NC2	2	1	3	8	5
Expert 4	NC4	7	8	6	1	4
Expert 5	NC4	5	2	8	1	4
Expert 6	NC4	4	2	9	1	3
Expert 7	NC1	1	5	7	2	5
Expert 8	NC4	6	3	2	1	4

Worst criterion →	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Expert 7	Expert 8
	NC1	NC2	NC4	NC2	NC2	NC3	NC3	NC1
NC1	1	6	4	2	4	3	9	1
NC2	5	1	9	1	1	5	3	3
NC3	2	3	5	4	3	1	1	5
NC4	8	7	1	5	8	7	5	8
NC5	3	5	3	3	5	4	2	4

**Table A2. Complexity of tax law (CL)**

Experts	Best Criterion	Best to Other criteria					
		CL1	CL2	CL3	CL4	CL5	CL6
Expert 1	CL6	8	6	2	5	3	1
Expert 2	CL4	6	5	4	1	9	3
Expert 3	CL1	1	5	3	9	7	2
Expert 4	CL1	1	2	4	2	9	5
Expert 5	CL4	4	7	5	1	9	2
Expert 6	CL1	1	4	8	6	5	9
Expert 7	CL2	5	1	9	7	6	4
Expert 8	CL3	4	3	1	2	7	8

Worst criterion →	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Expert 7	Expert 8
	CL1	CL5	CL4	CL5	CL5	CL6	CL3	CL6
CL1	1	4	9	8	4	9	5	4
CL2	4	2	3	5	2	5	7	5
CL3	3	5	5	3	3	4	1	9
CL4	5	8	1	7	9	2	4	8
CL5	2	1	7	1	1	8	2	2
CL6	6	7	2	4	7	1	3	1

**Table A3. Accounting irregularities and tax aggressiveness (AT)**

Experts	Best Criterion	Best to Other criteria			
		AT1	AT2	AT3	AT4
Expert 1	AT2	5	1	7	9
Expert 2	AT2	8	1	5	2
Expert 3	AT1	1	3	2	4
Expert 4	AT2	3	1	8	7
Expert 5	AT3	9	3	1	4
Expert 6	AT1	1	5	7	2
Expert 7	AT4	3	5	8	1
Expert 8	AT1	1	2	9	5

Worst criterion →	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Expert 7	Expert 8
	AT4	AT1	AT4	AT3	AT1	AT3	AT3	AT3
AT1	3	1	4	7	1	8	4	9
AT2	9	9	2	8	5	5	2	4
AT3	2	5	3	1	9	1	1	1
AT4	1	7	1	2	3	6	9	3

**Table A4. Characteristics of taxpayers (CT)**

Experts	Best Criterion	Best to Other criteria				
		CT1	CT2	CT3	CT4	CT5
Expert 1	CT4	3	9	5	1	7
Expert 2	CT3	9	5	1	4	3
Expert 3	CT3	9	2	1	8	4
Expert 4	CT2	3	1	5	9	6
Expert 5	CT1	1	6	9	5	2
Expert 6	CT5	9	5	4	2	1
Expert 7	CT5	7	3	9	5	1
Expert 8	CT2	3	1	4	2	9

Worst criterion →	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Expert 7	Expert 8
	CT2	CT1	CT1	CT4	CT3	CT1	CT3	CT5
CT1	4	1	1	7	9	1	2	6
CT2	1	3	8	9	2	3	6	9
CT3	3	6	9	5	1	4	1	3
CT4	9	9	2	1	3	6	3	5
CT5	2	5	3	3	4	9	9	1



Sub-Strategies

**Table A5. Trust**

Experts	Best Criterion	Best to Other criteria			
		T1	T2	T3	T4
Expert 1	T2	3	1	9	4
Expert 2	T1	1	2	8	5
Expert 3	T2	5	1	8	3
Expert 4	T2	5	1	6	8
Expert 5	T3	6	2	1	7
Expert 6	T4	3	5	9	1
Expert 7	T3	2	4	1	8
Expert 8	T1	1	2	4	7

Worst criterion →	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Expert 7	Expert 8
	T3	T3	T3	T4	T4	T3	T4	T4
T1	3	7	2	3	2	5	3	5
T2	8	5	6	6	4	2	2	3
T3	1	1	1	2	6	1	5	2
T4	2	3	5	1	1	8	1	1

**Table A6. Facilitation**

Experts	Best Criterion	Best to Other criteria				
		F1	F2	F3	F4	F5
Expert 1	F1	1	3	5	9	7
Expert 2	F1	1	3	5	4	8
Expert 3	F2	2	1	2	8	4
Expert 4	F1	1	3	9	4	2
Expert 5	F5	2	4	5	8	1
Expert 6	F4	2	5	1	4	3
Expert 7	F3	5	3	1	2	9
Expert 8	F1	1	3	4	8	2

Worst criterion →	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Expert 7	Expert 8
	F4	F5	F4	F3	F4	F2	F5	F4
F1	F1	F1	F1	F1	7	5	2	8
F2	F2	F2	F2	F2	6	1	3	5
F3	F3	F3	F3	F3	2	3	8	2
F4	F4	F4	F4	F4	1	8	5	1
F5	F5	F5	F5	F5	9	5	1	7

**Table A7. Enforcement**

Experts	Best Criterion	Best to Other criteria		
		E1	E2	E3
Expert 1	E2	2	1	5
Expert 2	E1	1	5	2
Expert 3	E1	1	6	3
Expert 4	E1	1	5	2
Expert 5	E1	1	4	6
Expert 6	E3	3	2	1
Expert 7	E2	3	1	5
Expert 8	E2	6	1	4

Worst criterion →	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Expert 7	Expert 8
	E3	E2	E2	E2	E3	E1	E3	E1
E1	E1	E1	5	6	5	1	4	1
E2	E2	E2	1	1	4	2	5	5
E3	E3	E3	3	3	1	5	1	3

Detailed weight of Sub-criteria

Potential Challenges

**Table A8. Non-compliance (NC)**

	NC1	NC2	NC3	NC4	NC5	ξ <sup>L</sup>
Expert 1	0.054	0.291	0.345	0.194	0.116	0.237
Expert 2	0.247	0.048	0.123	0.416	0.165	0.077
Expert 3	0.250	0.436	0.167	0.046	0.100	0.065
Expert 4	0.101	0.072	0.117	0.533	0.176	0.172
Expert 5	0.151	0.094	0.094	0.472	0.189	0.283
Expert 6	0.120	0.240	0.053	0.427	0.160	0.053
Expert 7	0.465	0.106	0.057	0.265	0.106	0.065
Expert 8	0.053	0.166	0.249	0.408	0.124	0.089
<b>MEAN</b>	<b>0.180</b>	<b>0.182</b>	<b>0.151</b>	<b>0.345</b>	<b>0.142</b>	<b>0.130</b>

**Table A9. Complexity of tax law (CL)**

	CL1	CL2	CL3	CL4	CL5	CL6	ξ <sup>L</sup>
Expert 1	0.043	0.081	0.244	0.098	0.163	0.372	0.116
Expert 2	0.091	0.109	0.137	0.439	0.041	0.182	0.108
Expert 3	0.408	0.108	0.181	0.030	0.077	0.195	0.135
Expert 4	0.356	0.209	0.105	0.209	0.037	0.084	0.063
Expert 5	0.121	0.069	0.097	0.430	0.042	0.241	0.052
Expert 6	0.485	0.161	0.081	0.108	0.129	0.036	0.160
Expert 7	0.123	0.484	0.051	0.088	0.102	0.153	0.130
Expert 8	0.117	0.156	0.389	0.233	0.067	0.039	0.078
<b>MEAN</b>	<b>0.218</b>	<b>0.172</b>	<b>0.160</b>	<b>0.204</b>	<b>0.082</b>	<b>0.163</b>	<b>0.105</b>

**Table A10. Accounting irregularities and tax aggressiveness (AT)**

	<b>AT1</b>	<b>AT2</b>	<b>AT3</b>	<b>AT4</b>	<b>ξ<sup>L</sup></b>
Expert 1	0.147	0.678	0.105	0.069	0.059
Expert 2	0.049	0.510	0.126	0.315	0.119
Expert 3	0.466	0.172	0.259	0.103	0.052
Expert 4	0.246	0.593	0.056	0.105	0.145
Expert 5	0.056	0.213	0.571	0.160	0.067
Expert 6	0.502	0.127	0.052	0.318	0.135
Expert 7	0.214	0.129	0.067	0.590	0.054
Expert 8	0.552	0.272	0.056	0.120	0.048
<b>MEAN</b>	<b>0.279</b>	<b>0.337</b>	<b>0.162</b>	<b>0.223</b>	<b>0.085</b>

**Table A11. Characteristics of taxpayers (CT)**

	<b>CT1</b>	<b>CT2</b>	<b>CT3</b>	<b>CT4</b>	<b>CT5</b>	<b>ξ<sup>L</sup></b>
Expert 1	0.197	0.055	0.118	0.545	0.085	0.047
Expert 2	0.041	0.130	0.448	0.163	0.217	0.204
Expert 3	0.044	0.275	0.474	0.069	0.138	0.077
Expert 4	0.209	0.517	0.125	0.045	0.104	0.109
Expert 5	0.502	0.091	0.051	0.109	0.247	0.044
Expert 6	0.046	0.103	0.129	0.258	0.464	0.053
Expert 7	0.089	0.207	0.049	0.124	0.531	0.089
Expert 8	0.165	0.424	0.124	0.248	0.039	0.071
<b>MEAN</b>	<b>0.161</b>	<b>0.225</b>	<b>0.190</b>	<b>0.195</b>	<b>0.228</b>	<b>0.087</b>

Sub- Strategies

**Table A12. Trust**

	<b>T1</b>	<b>T2</b>	<b>T3</b>	<b>T4</b>	<b>ξ<sup>L</sup></b>
Expert 1	0.203	0.576	0.068	0.153	0.034
Expert 2	0.521	0.297	0.064	0.119	0.073
Expert 3	0.138	0.560	0.072	0.230	0.129
Expert 4	0.150	0.637	0.125	0.087	0.113
Expert 5	0.098	0.294	0.529	0.078	0.059
Expert 6	0.223	0.134	0.062	0.582	0.087
Expert 7	0.296	0.148	0.481	0.074	0.111
Expert 8	0.490	0.286	0.143	0.082	0.082
<b>MEAN</b>	<b>0.265</b>	<b>0.367</b>	<b>0.193</b>	<b>0.176</b>	<b>0.086</b>

**Table A13. Facilitation**

	<b>F1</b>	<b>F2</b>	<b>F3</b>	<b>F4</b>	<b>F5</b>	<b>ξ<sup>L</sup></b>
Expert 1	0.538	0.202	0.121	0.052	0.087	0.069
Expert 2	0.498	0.191	0.115	0.143	0.053	0.074
Expert 3	0.231	0.385	0.231	0.038	0.115	0.077
Expert 4	0.433	0.161	0.042	0.121	0.242	0.051
Expert 5	0.274	0.137	0.110	0.041	0.438	0.110
Expert 6	0.281	0.044	0.347	0.140	0.187	0.214
Expert 7	0.096	0.160	0.452	0.239	0.053	0.027
Expert 8	0.424	0.164	0.123	0.045	0.245	0.067
<b>MEAN</b>	<b>0.347</b>	<b>0.180</b>	<b>0.193</b>	<b>0.103</b>	<b>0.178</b>	<b>0.086</b>

**Table A14. Enforcement**

	<b>E1</b>	<b>E2</b>	<b>E3</b>	<b>ξ<sup>L</sup></b>
Expert 1	0.281	0.594	0.125	0.031
Expert 2	0.611	0.111	0.278	0.056
Expert 3	0.644	0.111	0.244	0.089
Expert 4	0.579	0.105	0.316	0.053
Expert 5	0.683	0.217	0.100	0.183
Expert 6	0.133	0.333	0.533	0.133
Expert 7	0.260	0.640	0.100	0.140
Expert 8	0.111	0.685	0.204	0.130
<b>MEAN</b>	<b>0.413</b>	<b>0.350</b>	<b>0.238</b>	<b>0.102</b>