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TAX UNCERTAINTY AS A MEDIATOR IN AUDIT ADVICE DYNAMICS

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ABSTRACT

Purpose: This study investigates the effect of joint provision of audit and tax services on aggressive tax advice, with tax uncertainty assessment as a mediating variable. This research emphasizes individual professional judgment within integrated service structures a perspective that remains underexplored in current literature.

Methodology/approach: A quantitative associative approach was employed, with data collected through questionnaires from 100 auditors and tax professionals working in Public Accounting Firms (KAP) in Medan. Data analysis was conducted using Structural Equation Modeling with the Partial Least Squares (SEM-PLS) approach.

Findings: The results indicate that joint provision of audit and tax services significantly influences both tax uncertainty assessment and aggressive tax advice. Moreover, tax uncertainty assessment significantly affects aggressive tax advice and mediates the relationship between joint service provision and aggressive tax recommendations.

Practical implications: These findings have practical implications for public accounting firm management to ensure effective cross-functional collaboration while maintaining professional standards and tax advice quality.



Originality/value: This study extends the literature by introducing a behavioral perspective on tax professionals' decision-making in joint audit–tax environments. By integrating *ingroup–outgroup theory* and tax uncertainty frameworks, it provides novel evidence from the Indonesian context, addressing a gap in existing research that has largely overlooked the psychological and organizational mechanisms shaping aggressive tax advice.

Keywords: Aggressive Tax Advice; Joint Audit-Tax; Tax Uncertainty.

ABSTRAK

Tujuan penelitian: Penelitian ini bertujuan untuk menganalisis pengaruh penyediaan bersama jasa audit dan pajak terhadap pemberian nasihat pajak agresif, dengan penilaian ketidakpastian pajak sebagai variabel mediasi. Studi ini menekankan pada pertimbangan profesional individu dalam struktur layanan terpadu—sebuah perspektif yang masih jarang dieksplorasi dalam literatur terkini.

Metode/pendekatan: Penelitian ini menggunakan pendekatan kuantitatif asosiatif dengan pengumpulan data melalui kuesioner terhadap 100 auditor dan konsultan pajak yang bekerja di Kantor Akuntan Publik (KAP) di Kota Medan. Teknik analisis data dilakukan menggunakan metode Structural Equation Modeling dengan pendekatan Partial Least Squares (SEM-PLS).

Hasil: Hasil penelitian menunjukkan bahwa penyediaan bersama audit dan pajak berpengaruh signifikan terhadap penilaian ketidakpastian pajak dan nasihat pajak agresif. Selain itu, penilaian ketidakpastian pajak juga berpengaruh signifikan terhadap nasihat pajak agresif serta mampu memediasi hubungan antara audit-pajak bersama dengan nasihat pajak agresif.

Implikasi praktik: Hasil ini memiliki implikasi praktis terhadap manajemen KAP untuk mengelola interaksi lintas fungsi agar tetap menjaga profesionalisme dan kualitas rekomendasi perpajakan.

Orisinalitas/kebaharuan: Studi ini memperluas literatur dengan memperkenalkan perspektif perilaku dalam pengambilan keputusan profesional pajak di lingkungan audit–pajak terpadu. Dengan mengintegrasikan *ingroup–outgroup theory* dan kerangka ketidakpastian pajak, penelitian ini memberikan bukti baru dari konteks Indonesia serta mengisi kesenjangan riset yang selama ini banyak mengabaikan mekanisme psikologis dan organisasi dalam membentuk nasihat pajak agresif.

Kata kunci: Audit-Pajak Bersama; Ketidakpastian Pajak; Nasihat Pajak Agresif.

INTRODUCTION

In recent years, attention to aggressive tax planning practices has increased. Many countries face challenges in suppressing tax avoidance strategies carried out by multinational companies. One such strategy involves the provision of aggressive tax advice by tax professionals. This phenomenon not only threatens state revenues but also weakens the integrity of the tax system. Therefore, the issue of tax aggressiveness has become a central topic in global fiscal policy [Bauer et al. \(2020\)](#).

As the business grows, many public accounting firms offer audit and tax services simultaneously. The provision of these services is often referred to as joint audit-tax services and is a common practice, especially in large firms. However, this condition raises concerns regarding auditor independence and potential conflicts of interest. The question that arises is whether the provision of these joint services affects the quality and objectivity of tax advice. This raises the need to examine how this service structure affects tax professional decisions [Silveira & Bellen \(2025\)](#).

In addition to the issue of independence, there is also the question of how collaboration between audit and tax teams affects the way tax professionals assess uncertainty in a tax position. Tax uncertainty is one of the important aspects in preparing tax reserves in financial statements. If this assessment is not carried out objectively, it will impact the quality of financial reporting. Thus, the simultaneous provision of audit and tax services not only impacts tax aggressiveness, but also financial reporting as a whole. This issue becomes very relevant in the context of good corporate governance.

This phenomenon is further strengthened by the findings of [Mescall & Schmidt \(2025\)](#), which show that providing audit and tax services in one firm makes tax advisors provide more careful advice, because they clearly consider the impact on the audit opinion.. In addition, evidence from a study in Brazil ([Santos et al., 2021](#)) shows that companies that use tax services from their auditors tend to have less aggressive tax practices. This inconsistency indicates that the relationship between service structure and tax behavior is not yet fully clear. Furthermore, most prior studies employed archival approaches using indicators such as ETR or BTM, which fail to capture the psychological processes underlying professional decision-making. In the Indonesian context, research remains limited, even though joint audit-tax practices are relatively common in large public accounting firms and auditor independence regulations are becoming increasingly strict. Therefore, this study contributes by examining the role of tax uncertainty assessment as a mediator, to explain how structural integration is translated into professional behavior.

Research on tax aggressiveness at the corporate level has been widely conducted, primarily using indicators such as the Effective Tax Rate (ETR) or Book-Tax Differences (BTM). For instance, [Damayanti \(2019\)](#) examined six ASEAN countries and found that IFRS adoption actually increased book-tax aggressiveness, while legal enforcement reduced it. These findings highlight the importance of structural and regulatory factors in explaining corporate tax behavior. Similarly, ([Nebie & Cheng, 2023](#)) studied manufacturing firms in ASEAN and found that technical factors such as thin capitalization and intangible asset ownership affect tax avoidance, with profit management acting as a moderating variable. These studies emphasize that structural and technical variables play an important role, yet they remain focused on the macro level and do not capture the psychological processes of individuals in tax decision-making.

In Indonesia, a similar phenomenon was found by [Kartadjuma & Nuryaman \(2024\)](#), who showed that companies with Big Audit auditors has a lower CETR level, indicating the

influence of audit quality on corporate tax practices.. This finding supports the argument that an integrated audit-tax services structure can create internal control mechanisms that limit the aggressiveness of tax advice by professionals.

In the early period (2017–2019), joint audits in Indonesia were still limited in scope, focusing on strategic taxpayers and monitored through the Joint Audit Committee meetings. Over time, the program became more systematic and involved the Directorate General of Budget (DJA), creating stronger inter-agency synergy. A notable phenomenon occurred in 2023–2024, when revenue from joint audits surged from IDR 470.9 billion to IDR 2.31 trillion, even though the number of taxpayers examined remained relatively the same, demonstrating the program’s effectiveness. In addition to audits, the government has also developed other joint programs such as joint analysis, collection, investigation, and intelligence to strengthen supervision and tax data management (<https://media.kemenkeu.go.id/getmedia/c0bf8b54-6b67-4a93-b345-acc870f63a0d/APBN-KITA-SEP-2024>).

In large firms such as the Big Four, intense collaboration between auditors and tax consultants creates significant social and professional pressures. [Hux et al. \(2025\)](#) found that “power dynamics and differing attitudes toward shared goals and partnership affect the collaboration process,” which in turn affects the quality of audits and tax advice provided.. This condition reflects that in the interprofessional framework, tax professionals will be more careful not to deviate from the position of internal auditors.

The above phenomenon suggests that organizational structure and inter-functional relationships within professional service firms can influence technical decisions such as tax advice. However, there has been little research that explicitly explores how assessments of tax uncertainty mediate this relationship. Such assessments are important because they serve as the accounting basis for recognizing tax expenses in financial statements. When tax uncertainty is perceived as high, tax professionals tend to avoid overly aggressive advice. Therefore, assessments of tax uncertainty become an important variable worth paying attention to.

The selection of variables in this study is based on theoretical grounding, empirical relevance, and the need to address gaps in the literature. The variable joint provision of audit and tax services is chosen because this practice is increasingly common in large accounting firms, particularly the Big Four, and is believed to influence the quality and independence of professional decisions, including tax advice. The dependent variable, aggressive tax advice, is selected because it serves as a key indicator of tax professionals’ behavior in relation to compliance and risk, and represents a critical issue with direct implications for tax authorities and firm credibility. The mediating variable, tax uncertainty assessment, is included because it reflects a key cognitive process in tax-related decision-making, particularly when tax regulations are ambiguous or carry a high degree of risk. Prior studies [Abdallah et al. \(2024\)](#), [Klassen et al. \(2016\)](#) have shown that perceived uncertainty significantly affects cautious or conservative professional behavior, but it has rarely been tested as a mediating variable in the context of integrated service provision. Therefore, these three variables were deliberately selected to construct a conceptual model that not only captures direct relationships but also explains the underlying psychological mechanisms driving professional tax behavior.

One theory that can explain this phenomenon is the ingroup-outgroup bias theory. This theory states that a person will show more cautious or conservative behavior when

interacting with members of his/her own group [Shkurko \(2021\)](#). In this context, tax professionals who are in the same firm as the auditor are considered as part of the ingroup. Therefore, they tend to provide more conservative recommendations to maintain reputation and harmony within the group. This theory explains the change in professional attitudes in the context of joint service provision.

In addition to the ingroup-outgroup theory, agency theory is also relevant to explain this relationship. According to [Hendrastuti & Harahap \(2023\)](#), agency theory explains that information asymmetry and agency costs can be reduced through effective internal control mechanisms, including the division of tax and audit functions in one firm. [Pham et al. \(2023\)](#) support this, showing that synergy between tax enforcement and independent audits increases the effectiveness of internal controls, which in turn reduces the potential aggressiveness of professional tax advice.

Judgment and decision-making theory emphasizes that professional decisions are influenced by available information, social pressure from colleagues, and the organizational structure in which they operate. [Pham et al. \(2023\)](#) show that tax enforcement and independent audits can improve financial reporting quality by strengthening internal control systems. This is in line with decision-making theory which emphasizes the importance of organizational structure and external pressure in shaping professional decisions. In addition, (Moustafa Abdallah et al., 2024) found that task factors and organizational environment are key determinants of auditor decision-making similar to how tax professionals assess uncertainty and aggressiveness of advice in a combined service context.

Previous research by [Mescall & Schmidt \(2025\)](#) showed that the joint provision of audit and tax services has an impact on the judgments and advice given by tax professionals. In this experimental study, participants who worked at firms that also audited clients provided more conservative advice. They also rated tax uncertainty higher than participants from firms that only provided tax services. This study provides initial evidence that service structure influences professional behavior. Uncertainty judgments are an important mediating factor.

Studies by [Klassen et al. \(2016\)](#) and [Watrin et al. \(2014\)](#) also found that joint provision of audit and tax services is associated with lower tax avoidance. However, their studies are more archival in nature and do not directly evaluate the professional decision-making process. In addition, the measurement of tax aggressiveness is carried out through indicators such as ETR, which tend to have limitations. Therefore, studies are still needed that explore how individual judgments are formed. Especially in the context of uncertainty and internal professional pressure.

Another study that supports the importance of uncertainty variables is [Blaufus et al. \(2025\)](#), which emphasizes that uncertainty assessment greatly affects financial statements. This assessment is the basis for the formation of tax reserves according to IFRIC 23 and ASC 740. Therefore, changes in uncertainty perceptions affect not only tax aggressiveness but also accounting numbers. Therefore, testing uncertainty as a mediator can provide an important contribution to the literature. This study is here to fill this gap.

This study aims to examine how the provision of audit and tax services simultaneously affects aggressive tax advice, with uncertainty assessment as a mediating variable. This study was conducted in the context of KAP in Medan, with a quantitative approach. The main objective of this study is to provide empirical evidence in the Indonesian context, which is still relatively rarely explored. By adding mediating variables, this study enriches the theoretical understanding of this phenomenon. In addition, the approach used is different from previous studies that tend to be based on secondary data.

This study holds strong urgency due to the growing practice of integrated audit and tax service provision within a single firm, especially among large public accounting firms. This integration raises critical questions regarding how cross-functional interactions influence the independence and quality of professional decisions, particularly in the context of tax advisory services. Simultaneously, increasing complexity and frequent changes in tax regulations create heightened uncertainty, making it more difficult for tax professionals to formulate strategies that are not only legally compliant but also ethically sound. Previous research has largely focused on structural or macro-level effects, with limited attention to the internal cognitive processes of professionals operating in integrated environments. Therefore, this study is timely and essential in addressing that gap by offering a perception-based approach and testing a mediating mechanism that reflects psychological dimensions of professional judgment. The findings are expected to provide valuable insights for policymakers, public accounting firm leadership, and tax regulators in developing governance frameworks that are more responsive to inter-functional dynamics within the accounting profession.

Previous studies on aggressive tax advice have primarily emphasized macro-level factors such as firm characteristics, governance mechanisms, and tax enforcement. Many of these studies use archival approaches and proxy aggressiveness through financial indicators such as Effective Tax Rate (ETR) or Book-Tax Differences, without directly investigating how professionals make decisions in complex and uncertain environments. A smaller body of research has examined individual judgment, but often in isolation without considering how structural factors like joint audit-tax service provision influence internal decision dynamics. Moreover, existing studies tend to treat uncertainty as a contextual variable rather than a psychological mediating mechanism. This limits our understanding of how audit-tax integration indirectly affects tax advice behavior through internal cognitive and perceptual processes.

Therefore, this study addresses a clear research gap by exploring how perceived tax uncertainty mediates the relationship between joint audit-tax services and aggressive tax advice. Unlike prior work that relies heavily on archival data or firm-level aggregates, this study adopts a behavioral, perception-based approach, allowing for a more nuanced understanding of professional judgment under structural and psychological influence. The novelty of this research lies in its integration of organizational structure (joint service), individual cognition (uncertainty), and behavioral outcomes (aggressive advice) into a single analytical model. This model contributes theoretically by extending agency theory and judgment & decision-making frameworks, and practically by offering insights into how integrated services may unintentionally suppress or shape professional behavior in tax practices.

The ingroup–outgroup theory suggests that professionals are more conservative when dealing with members of their own group, as reputational concerns and social pressures limit opportunistic behavior. When audit and tax services are jointly provided within the same firm, tax professionals operate as part of the same internal group as auditors. This internal relationship discourages overly aggressive tax recommendations, since such behavior could undermine the auditor’s role and damage the firm’s credibility Mescall & Schmidt (2025). Therefore, joint provision of audit and tax services is expected to reduce the likelihood of aggressive tax advice.

The link between joint provision and tax uncertainty assessment is rooted in both decision-making and agency theory. Audit professionals contribute a risk-oriented mindset, while tax specialists provide technical expertise on complex tax rules. When these functions are

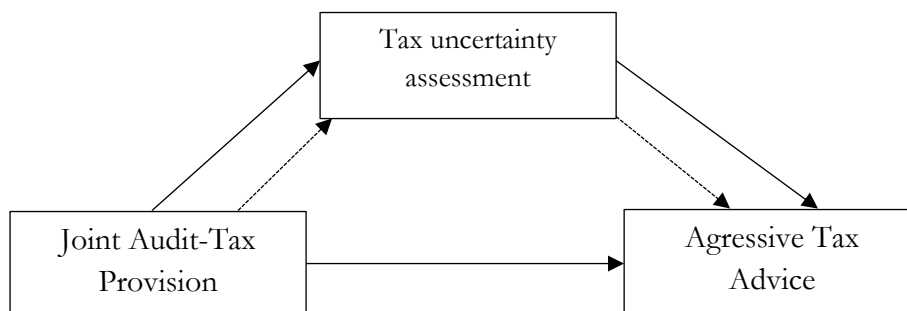
integrated within the same firm, knowledge sharing and cross-functional monitoring improve professionals' ability to evaluate ambiguous tax situations more rigorously. Prior studies also highlight that integrated professional services enhance risk assessment by reducing information gaps and promoting comprehensive analysis [Blaufus et al. \(2025\)](#), [Moustafa Abdallah et al. \(2024\)](#). Hence, joint provision of audit and tax services is expected to positively influence the quality of tax uncertainty assessment.

Tax professionals' assessment of uncertainty significantly shapes their advisory decisions. When uncertainty surrounding tax rules and enforcement is perceived to be high, professionals face greater risks of penalties, disputes, and reputational damage if they recommend aggressive interpretations. Decision-making theory predicts that under conditions of heightened uncertainty, cautious strategies become more attractive [Blaufus et al. 2025](#)). Accordingly, higher tax uncertainty assessment is expected to reduce the tendency to provide aggressive tax advice.

Joint provision enhances professionals' ability to assess tax uncertainty (H2), and such assessment reduces the likelihood of aggressive tax advice (H3). Based on mediation theory, the effect of joint provision on aggressive tax advice can therefore be explained through its influence on tax uncertainty assessment. In other words, tax uncertainty assessment acts as a mediating mechanism that transmits the influence of organizational structure (joint provision) into individual professional behavior (aggressiveness in tax advice).

To illustrate the theoretical relationships and direction of hypotheses in this study, a conceptual model is developed. This model integrates three key variables: joint provision of audit and tax services as the independent variable, aggressive tax advice as the dependent variable, and tax uncertainty assessment as the mediating variable. The model is constructed based on ingroup-outgroup theory, agency theory, and decision-making frameworks, as well as supported by previous empirical findings. Each directional path in the model represents a hypothesis tested in this research. The following figure presents the proposed conceptual framework of this study.

Figure 1.
Conceptual
Framework



Based on this theoretical reasoning and empirical foundation, the following hypotheses are proposed:

1. H1: Joint provision of audit and tax services negatively influences aggressive tax advice.
2. H2: Joint provision of audit and tax services positively influences tax uncertainty assessment.
3. H3: Tax uncertainty assessment negatively influences aggressive tax advice.
4. H4: Tax uncertainty assessment mediates the relationship between joint audit-tax provision and aggressive tax advice.

METHOD

This study employs a quantitative associative approach to investigate the influence of joint provision of audit and tax services on aggressive tax advice, with tax uncertainty assessment as a mediating variable. Data were collected through a structured closed-ended questionnaire, distributed both offline and online to ensure broader reach and minimize non-response bias. The population comprises auditors and tax consultants working at Public Accounting Firms (KAPs) in Medan City that provide integrated audit and tax services. A purposive sampling method was used to select 100 respondents, based on their professional experience and direct involvement in joint audit-tax engagements. Each construct in this study was measured using reflective indicators adapted from validated instruments in previous studies. The operational definition of the variables is as follows:

Variable	Definition	Indicators	Scale
Joint Audit-Tax Provision (X)	The extent of integration and coordination between audit and tax teams within the same firm	X1. Communication intensity; X2. Information exchange; X3. Perceived synergy Albawwat (2022)	Likert Scale 1–5
Tax Uncertainty Assessment (Z)	The perceived ambiguity and risk in interpreting and applying tax regulations	Z1. Regulatory ambiguity; Z2. Interpretive difficulty; Z3. Risk of tax authority correction Neuman et al. (2020)	Likert Scale 1–5
Aggressive Tax Advice (Y)	The extent to which professionals are willing to recommend high-risk or boundary-pushing tax strategies	Y1. Tolerance for ambiguity; Y2. Willingness to advise under uncertainty; Y3. Perceived risk of enforcement Lynch & McCullagh (2024)	Likert Scale 1–5

Table 1.
Operational Definition of Variables

The study does not include covariates or control variables in the structural model, to isolate and focus on the direct and mediating effects between the core constructs. However, respondent characteristics such as years of experience, firm size, and professional background were collected and reported descriptively to contextualize the findings.

Data analysis was conducted using Structural Equation Modeling with Partial Least Squares (SEM-PLS) via SmartPLS 4. This method was chosen due to its robustness in handling complex models with moderate to small sample sizes, and its ability to assess both direct and indirect effects simultaneously ([Hair et al. \(2022\)](#)). The model specification is based on a first-order reflective measurement model, where each latent construct is directly measured by multiple observed indicators. There are no second-order or higher-order constructs in this study.

To mitigate the risk of common method bias (CMB), several procedural remedies were applied: (1) respondent anonymity was assured, (2) psychological separation between predictor and criterion items was maintained, and (3) ex-post statistical assessment was performed using the full collinearity test ($VIF \leq 3.3$) as suggested by ([Hair et al. \(2022\)](#)). The results confirmed that CMB is not a threat in this study.

This research follows the guidance of [Hair et al. \(2022\)](#) in model development, assessment of reliability and validity (via composite reliability, AVE, and discriminant validity using HTMT), and structural model evaluation including R-square, f-square, and indirect effects.

RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistical analysis was conducted to provide an overview of the data distribution of each research variable, namely joint provision of audit and tax services, assessment of tax uncertainty, and aggressive tax advice. Descriptive statistics include the average value (mean), standard deviation, minimum value, and maximum value of respondents' responses to the questionnaire instrument. These results aim to identify the general tendency of respondents' behavior in answering each statement that represents these variables. The values obtained also serve as a basis for understanding the pattern of respondents' perceptions of integrated audit-tax service practices, the uncertainty assessment process, and the level of caution in providing tax advice. A summary of descriptive statistics for each variable is presented in Table 1 below.

Variabel	N	Mean	Std. Dev	Minimum	Maximum	Mode	Mode Frequency
Joint Tax Audit (X)	100	4.02	0.70	3	5	4	14
Tax Uncertainty (Z)	100	3.85	0.68	2	5	4	12
Aggressive Tax Advice (Y)	100	3.78	0.72	2	5	4	11

Table 2.
Descriptive
Statistics

Descriptive statistics indicate that respondents generally show moderate to high agreement across the three main constructs. The mean score for joint audit–tax provision (X) was 4.02 with a standard deviation of 0.70, suggesting that most professionals frequently experience coordinated audit and tax practices, although some variation exists. Tax uncertainty (Z) had a mean of 3.85 and a standard deviation of 0.68, indicating that respondents perceive a moderate to high level of ambiguity and risk in tax interpretation. Aggressive tax advice (Y) yielded a mean of 3.78 with a standard deviation of 0.72, reflecting that a significant portion of professionals exhibit moderate aggressiveness in their advisory stance. The mode for all three variables was 4, with 14 respondents selecting this score for joint audit–tax provision, 12 for tax uncertainty, and 11 for aggressive tax advice. This convergence at the same mode value demonstrates a consistent tendency among respondents toward moderately strong perceptions and behaviors across the three constructs, highlighting the prevalence of coordinated service practices, cautious tax judgment, and moderate advisory aggressiveness among tax professionals.

Data Analysis and Discussion

Outer Loading

Convergent Validity

Before testing the relationship between variables in the structural model, the initial stage is to test the convergent validity to ensure that each indicator is able to reflect the construct

being measured accurately. The convergent validity test is carried out by looking at the outer loading value of each statement item against its construct indicator. According to [Hair et al. \(2022\)](#), the recommended outer loading value is ≥ 0.70 to indicate that the indicator has a strong correlation with its latent construct. In this study, each main variable consists of three indicators, and each indicator consists of three statement items. The test results show that all items have outer loading values that meet the criteria, which means that all indicators are convergently valid and can be used in the next analysis stage. Details of the convergent validity results are presented in Table 2 below.

Main Variables	Indicator	Item Code	Outer Loading	Information
Joint Tax Audit (X)	Coordination of audit and tax teams	X1.1	0.812	Valid
		X1.2	0.845	Valid
		X1.3	0.796	Valid
	Exchange of tax audit information	X2.1	0.788	Valid
		X2.2	0.820	Valid
		X2.3	0.799	Valid
	Perception of service synergy	X3.1	0.814	Valid
		X3.2	0.826	Valid
		X3.3	0.832	Valid
Tax Uncertainty Assessment (Z)	Ambiguity of tax rules	Z1.1	0.879	Valid
		Z1.2	0.902	Valid
		Z1.3	0.873	Valid
	Uncertainty of interpretation	Z2.1	0.865	Valid
		Z2.2	0.888	Valid
		Z2.3	0.851	Valid
	Risk of tax correction	Z3.1	0.834	Valid
		Z3.2	0.861	Valid
		Z3.3	0.845	Valid
Aggressive Tax Advice (Y)	Aggressive strategy recommendations	Y1.1	0.768	Valid
		Y1.2	0.801	Valid
		Y1.3	0.784	Valid
	Gray cut suggestion	Y2.1	0.790	Valid
		Y2.2	0.815	Valid
		Y2.3	0.772	Valid
	Compliance risk tolerance	Y3.1	0.783	Valid
		Y3.2	0.808	Valid
		Y3.3	0.796	Valid

Based on the results of the convergent validity test, all statement items in each indicator showed an outer loading value above 0.70. This shows that each item is able to reflect the construct consistently and strongly, in accordance with the limits set by ([Hair et al. \(2022\)](#)). For the audit and tax joint provision variable, the outer loading value ranged from 0.788 to 0.845, indicating that both team coordination, information exchange, and perceptions of service synergy were measured validly. Likewise, the indicator in the tax uncertainty assessment variable showed a very high outer loading value, namely between 0.834 and 0.902, which showed the consistency of respondents' perceptions of the uncertainty faced in tax practices. Meanwhile, the indicator in the aggressive tax advice variable also met the validity requirements, with an outer loading value between 0.768 and 0.815. These findings indicate

that all constructs in the model have good convergent validity and can be continued to the reliability and discriminant validity testing stages.

Composite Reliability

After ensuring convergent validity, the next step is to test the construct reliability to assess the internal consistency between items in each latent variable. Reliability testing in this study uses the Composite Reliability (CR) value, because it is considered more accurate than Cronbach's Alpha in the context of SEM analysis based on Partial Least Squares (PLS), especially when the indicators have uneven loadings. According to (Hair et al. (2022), a good CR value must be above 0.70 as the minimum limit to state that the construct has adequate reliability.

Table 4. Composite Reliability

Variables	Composite Reliability	Information
Joint Provision of Audit and Tax (X)	0.912	Reliable
Tax Uncertainty Assessment (Z)	0.938	Reliable
Aggressive Tax Advice (Y)	0.921	Reliable

Based on the results of data processing, all variables in the research model have CR values above the threshold. The Joint Provision of Audit and Tax variable obtained a CR value of 0.912, Tax Uncertainty Assessment of 0.938, and Aggressive Tax Advice of 0.921. These values indicate that the indicators in each construct have high internal consistency and reliably reflect the variables being measured. Thus, it can be concluded that all constructs in the model have met the reliability criteria and are worthy of further analysis in testing the structural model.

Average Variance Extracted (AVE)

After testing the convergent validity through the outer loading value and construct reliability through the composite reliability value, the next step is to measure the Average Variance Extracted (AVE) to strengthen the evidence of convergent validity of each latent variable. AVE shows how much proportion of indicator variance can be explained by the measured construct. The higher the AVE value, the greater the ability of the construct to represent its indicators consistently. AVE is important to ensure that the indicators are not only internally consistent but also truly reflect the essence of the intended construct. The results of AVE measurements for each variable are presented in Table 4 below.

Table 5. Average Variance Extracted (AVE)

Variables	AVE	Information
Joint Provision of Audit and Tax (X)	0.633	Valid
Tax Uncertainty Assessment (Z)	0.752	Valid
Aggressive Tax Advice (Y)	0.679	Valid

In this study, all variables showed AVE values that were higher than the recommended minimum limit. The Joint Provision of Audit and Tax variable had an AVE of 0.633, Tax Uncertainty Assessment of 0.752, and Aggressive Tax Advice of 0.679. These results indicate that the three constructs have strong convergent validity, because they are able to explain more than half of the variance of each indicator. Thus, all constructs in the model have met the AVE measurement criteria and can be used for the next testing stage.

Discriminant Validity

After testing the convergent validity and construct reliability, the next step is to test the discriminant validity to ensure that each construct in the model has a clear and empirically significant difference from other constructs. In this study, discriminant validity testing was carried out using the Heterotrait-Monotrait Ratio of Correlations (HTMT) approach, which

is considered more sensitive and accurate than the Fornell-Larcker method, especially in complex models or when variables have high correlations.

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According to [Hair et al. \(2022\)](#), discriminant validity is declared fulfilled if the HTMT value between constructs does not exceed 0.90. A high HTMT value indicates potential overlap between constructs, while a value below 0.90 indicates that each construct is quite different and does not represent each other.

Construct	Joint Tax Audit (X)	Tax Uncertainty (Z)	Aggressive Tax Advice (Y)
Joint Tax Audit (X)	–	0.688	0.715
Tax Uncertainty (Z)		–	0.743
Aggressive Tax Advice (Y)			–

Table 6.
Discriminant Validity

Based on the results of data processing, all HTMT values between constructs in this study are below the threshold of 0.90, which means that all latent variables have good discriminant validity. Thus, it can be concluded that this model has met the criteria for discriminant validity and is feasible to continue to the stage of testing the relationship between constructs in the structural model.

Model Fit Evaluation

Model fit evaluation is an essential step in assessing how well the proposed structural model corresponds to the observed data. In Partial Least Squares Structural Equation Modeling (PLS-SEM), although model fit is not as central as in covariance-based SEM, recent methodological developments have recommended the inclusion of fit indices such as SRMR, NFI, and GOF to ensure model adequacy ([Hair et al. \(2022\)](#)).

The SRMR (Standardized Root Mean Square Residual) value for the model is 0.061, which is below the recommended threshold of 0.08. This indicates that the residual differences between the observed and predicted correlations are small, reflecting a good model fit. Additionally, the Normed Fit Index (NFI) obtained in the study is 0.928, exceeding the minimum criterion of 0.90, suggesting that the proposed model has significantly improved fit compared to a null model with no relationships.

The Goodness of Fit (GOF) index, which is calculated as the square root of the product between the average variance extracted (AVE) and the average R-square, was found to be 0.615. This value is above the 0.36 threshold, which categorizes it as a large model fit according to ([Hair et al. \(2022\)](#)). Table 7 presents the summary of these fit indices.

Fit Index	Value	Threshold Criteria	Model Fit Evaluation
SRMR	0.061	≤ 0.08	Good Fit
NFI	0.928	≥ 0.90	Acceptable Fit
GOF	0.615	≥ 0.36 = large	Large Fit

Table 7.
Model Fit Indices

Based on the results presented in Table 7, the model demonstrates a satisfactory level of fit. The SRMR (Standardized Root Mean Square Residual) value of 0.061 is below the recommended maximum threshold of 0.08 ([Hair et al. \(2022\)](#)), indicating that the discrepancy between the observed and predicted correlations in the model is acceptably low. This means the model can reproduce the empirical covariance matrix with reasonable accuracy. Furthermore, the Normed Fit Index (NFI) value of 0.928 exceeds the minimum requirement

of 0.90, showing that the proposed model has a better fit compared to the null model that assumes no relationships among variables.

In addition, the calculated Goodness of Fit (GOF) value is 0.615, which is considered a large fit based on the classification by [\(Hair et al. \(2022\)\)](#), where GOF values above 0.36 are interpreted as strong. This value reflects both the quality of the measurement model (through AVE) and the explanatory power of the structural model (through R-square). Collectively, these indices provide strong evidence that the overall model is well-fitting and appropriate for explaining the relationships among the variables tested in this study.

Partial Least Square Analysis with Intervening Variables

R Square

R-Square or coefficient of determination is used to measure how much the independent variable is able to explain the variation of the dependent variable in the structural model. The R-Square value is in the range of 0 to 1, where the higher the value, the greater the proportion of variance that can be explained by the model. According to [Hair et al. \(2022\)](#), an R-Square value of 0.75 is categorized as strong (substantial), 0.50 is categorized as moderate, and 0.25 is categorized as weak. This value does not indicate statistical significance, but provides an overview of the extent to which the model's predictions of endogenous variables can be relied on. In the context of this study, R-Square is used to assess the ability of the joint audit and tax provision variables and the assessment of tax uncertainty in explaining variations in the aggressive tax advice variable. Adequate R-Square results indicate that the model has good predictive power and is relevant for further analysis in hypothesis testing.

Table 8.
R Square

Endogenous Variables	R-Square	Category
Tax Uncertainty Assessment (Z)	0.487	Currently
Aggressive Tax Advice (Y)	0.612	Medium-Strong

Based on the results of the structural model test, an R-Square value of 0.487 was obtained for the tax uncertainty assessment variable and 0.612 for the aggressive tax advice variable. The R-Square value of 0.487 indicates that around 48.7 percent of the variation in tax uncertainty assessment can be explained by the variable of joint provision of audit and tax services. Meanwhile, the R-Square value of 0.612 indicates that 61.2 percent of the variation in aggressive tax advice can be explained by the variable of joint provision of audit and tax services and tax uncertainty assessment. Referring to the guidelines of [Hair et al. \(2022\)](#), the R-Square value is in the moderate to strong category. This shows that the research model has a fairly good predictive ability in explaining the relationship between independent and dependent variables in the context of tax professional behavior towards aggressive advice provision.

F Square

The f-square test or effect size is used to determine the extent to which the independent variables influence the dependent variables individually in the structural model. Unlike R-square which shows the collective ability of independent variables to explain the dependent variable, f-square functions to evaluate the unique contribution of each predictor variable to the endogenous construct. According to [Hair et al. \(2022\)](#), the f-square value can be categorized into three levels: 0.02 indicates a small effect, 0.15 indicates a moderate effect, and 0.35 indicates a large effect.

Thus, if the f-square value of a construct is above 0.15, then its contribution to the dependent variable can be considered substantively significant in the model. Conversely, a value below

0.02 indicates that the influence of the variable is very small or almost insignificant. F-square evaluation is important in quantitative research based on SEM-PLS because it can identify whether the removal of a construct will substantially reduce the predictive power of the model. Therefore, this test is used to support the assessment of the quality and effectiveness of the relationship between constructs in the research model.

Independent Variables	Dependent Variable	f ²	Category
Joint Tax Audit (X)	Tax Uncertainty Assessment (Z)	0.161	Currently
Joint Tax Audit (X)	Aggressive Tax Advice (Y)	0.103	Small
Tax Uncertainty Assessment (Z)	Aggressive Tax Advice (Y)	0.231	Currently

Table 9.
F Square

The results of the f-square test show the magnitude of the contribution of each independent variable to the dependent variable individually in the structural model. Based on the results of data processing, the variable of joint provision of audit and tax services has an f-square value of 0.161 on the assessment of tax uncertainty, which is categorized as a moderate influence. This shows that the existence of the integration of audit and tax services makes a significant contribution in shaping professional perceptions of tax uncertainty. Meanwhile, the direct effect of joint provision of audit and tax on aggressive tax advice has an f-square value of 0.103, which is in the small category, but still shows a contribution to the dependent variable. The variable of tax uncertainty assessment on aggressive tax advice has an f-square value of 0.231, which is categorized as moderate, indicating that perceptions of tax uncertainty substantially affect the caution or aggressiveness of tax professionals in providing advice. This finding confirms the importance of the role of mediating variables in strengthening the indirect effect of audit and tax provision on tax advice-giving behavior.

Direct Effect

Direct effect or direct influence is a causal relationship that occurs directly between an independent variable and a dependent variable without going through an intermediary or mediating variable. In the SEM-PLS-based structural model, the direct effect is measured through the path coefficient value which shows the direction and strength of the relationship between latent variables. This coefficient value is in the range of -1 to +1, where the closer to +1 or -1 indicates the stronger the positive or negative relationship between variables. Direct effect testing is also equipped with t-statistic and p-value values to determine the significance of the relationship.

According to [Hair et al. \(2022\)](#), the direct effect is declared significant if the t-statistic value is greater than 1.96 at a significance level of 5% (p <0.05). In addition, the direction of the coefficient also needs to be considered to assess whether the relationship is positive or negative according to the hypothesis. Thus, the direct effect provides important information about how much and how significant the direct contribution of an independent variable is in explaining the variation of the dependent variable in the model, before considering the indirect effect through the mediator.

Relationship Between Variables	Path Coefficient	t-statistic	p-value	Information
Joint Tax Audit (X) → Tax Uncertainty (Z)	0.698	7,421	0.000	Significant
Joint Tax Audit (X) → Aggressive Tax Advice (Y)	0.241	2.013	0.045	Significant
Tax Uncertainty (Z) → Aggressive Tax Advice (Y)	0.481	4.365	0.000	Significant

Table 10.
Direct Effect

The results of the direct effect test show that all relationships between variables in this research model are statistically significant. The path coefficient is 0.698 with a t-statistic of 7.421 and a p-value of 0.000 (<0.05). This result indicates that joint provision of audit and tax services significantly and positively affects tax uncertainty assessment. Thus, H2 is supported, confirming that integration between audit and tax teams enhances professionals' sensitivity toward regulatory ambiguity and uncertainty. The path coefficient is 0.241 with a t-statistic of 2.013 and a p-value of 0.045 (<0.05). This finding shows that joint provision of audit and tax services has a significant positive influence on aggressive tax advice. Therefore, H1 is supported. However, the magnitude of the effect is relatively weaker compared to the indirect pathway through tax uncertainty assessment, suggesting that the mediating mechanism plays a more dominant role. The path coefficient is 0.481 with a t-statistic of 4.365 and a p-value of 0.000 (<0.05). This confirms that tax uncertainty assessment has a significant positive effect on aggressive tax advice. Consequently, H3 is supported, reinforcing the idea that professionals' perceptions of uncertainty directly shape the aggressiveness of their tax recommendations.

Indirect Effect

Indirect effect or indirect influence measures the causal relationship between the independent variable and the dependent variable that occurs through the mediating variable. In the context of the mediation model, the indirect effect is important to understand whether an independent variable influences the dependent variable indirectly through the intermediary role of another construct. The magnitude of the indirect effect is calculated as the result of multiplying the path coefficient from the independent variable to the mediator and from the mediator to the dependent variable. Similar to the direct effect, the indirect effect is considered significant if the t-statistic value is more than 1.96 and the p-value is less than 0.05 at a significance level of 5% (Hair et al. (2022)).

Indirect effect testing is also the basis for mediation analysis to determine whether the relationship between variables is fully mediated (full mediation), partially mediated (partial mediation), or not mediated at all (no mediation). Therefore, indirect effects play an important role in understanding the internal mechanisms of the relationship between constructs in the research model. When the indirect effect is significant, it indicates that the mediating variable has an important role in bridging the influence between the independent and dependent variables, so that the interpretation of the relationship in the model becomes richer and deeper.

	Indirect Relationship	Path Coefficient	t-statistic	p-value	Information
Table 11. Indirect Effect	Joint Tax Audit (X) → Tax Uncertainty (Z) → Aggressive Tax Advice (Y)	0.336	3.984	0.000	Significant

The results of the indirect effect test indicate that the variable of joint provision of audit and tax services has a significant effect on aggressive tax advice through the assessment of tax uncertainty as a mediating variable. The path coefficient value for this indirect effect is 0.336 with a t-statistic value of 3.984 and a p-value of 0.000. Since the t-statistic value is greater than 1.96 and the p-value is smaller than 0.05, it can be concluded that the indirect effect is statistically significant. This finding indicates that the integration of audit and tax services not only has a direct impact on the behavior of tax professionals, but also affects their perception of tax uncertainty, which in turn affects the tendency to provide aggressive or conservative advice. Thus, the mediating role of the assessment of tax uncertainty is proven to be

important in bridging the effect of the provision of audit-tax services on more prudent tax advice practices.

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Discussion

The Impact of Joint Tax Audits on Aggressive Tax Advice

The statistical results show that the joint provision of audit and tax services has a significant direct effect on aggressive tax advice, with a path coefficient of 0.241, a t-statistic of 2.013, and a p-value of 0.045 (<0.05). These results indicate that integration between audit and tax functions significantly influences the tendency of professionals to provide tax advice, thereby confirming H1.

However, the coefficient value (0.241) is relatively smaller than the effect of the mediating variable (tax uncertainty assessment \rightarrow aggressive tax advice, coefficient 0.481). This suggests that the influence of integration is not as strong when compared to professionals' evaluation of uncertainty, which becomes a dominant determinant of advisory aggressiveness.

The finding also confirms the logic of ingroup–outgroup theory, in which joint service provision creates closer interaction and shared accountability among professionals. While this internal relationship was expected to restrain aggressiveness, the positive and significant coefficient indicates that integration may, under certain contexts, increase confidence and the willingness to recommend aggressive strategies. Thus, the statistical evidence supports H1 but also highlights that the mechanism is complex, with integration shaping professional behavior in multiple ways.

The integration of audit and tax services within a single firm does more than streamline workflows it fosters intense and meaningful professional interaction between auditors and tax consultants. In such structures, professionals collaborate not only operationally but also in shaping shared interpretations of client risks. This aligns with modern agency theory, which suggests that when oversight and advisory functions coexist internally, reputational accountability is elevated, leading professionals to restrain aggressive behavior. Supporting this, (Alshabibi et al., 2022) found that integrated service environments significantly reduce the inclination to recommend aggressive tax strategies. The firm setting thus operates as an informal control mechanism through internal relational dynamics.

One explanation arises from agency theory: close internal relationships may reduce monitoring effectiveness and create conflicts of interest. Tax professionals might leverage their visibility into audit procedures to build aggressive positions that stay within accounting boundaries. Consequently, integration may act more as an enabler than a governor, providing intellectual cover while pushing tax positions. In this context, social proximity can foster opportunistic behavior, not just conservative caution.

Organizational culture may also play a critical role. As noted by (Dyrenge et al. (2014), some firms prioritize client-centric performance metrics over stringent compliance. If a firm's climate rewards client outcomes, tax staff operating in integrated settings may feel encouraged to use firm's audit knowledge to enhance outcomes. This dynamic suggests that internal confidence, not just social control, can shift norms toward aggressive behavior something to consider in policy-making.

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Alternative explanations include client characteristics: large, complex clients served by integrated firms might pressure for favorable tax outcomes, pushing advisors toward aggressive tactics. Other possible confounding factors are staff seniority, competitive internal incentives, or tax team targets not captured by the model. These dimensions underline that

integration's positive effect may not stem solely from structure but from its intersection with client demands and firm incentives.

This finding complicates assumptions that integration uniformly reduces aggressiveness. It aligns with [Watrin et al. \(2014\)](#), who caution that joint service can enhance advisory sophistication under certain conditions. Thus, rather than assuming integration equals compliance, it's essential to examine how integration is operationalized and the cultures surrounding client service and risk.

Overall, this research enriches understanding by revealing that organizational design affects ethical behavior in nuanced ways, depending on internal norms, leadership, and incentive schemes. To fully grasp this dynamic, further studies involving experimental designs or qualitative interviews are needed to uncover professionals' rationales. Our findings indicate that while integration significantly influences aggressive tax advice, interpreting this effect requires careful analysis of context, motivations, and firm-level culture.

The Impact of Tax Uncertainty on Aggressive Tax Advice

The results indicate that tax uncertainty assessment has a significant positive effect on aggressive tax advice, with a path coefficient of 0.481, a t-statistic of 4.365, and a p-value of 0.000 (<0.05). This means that the higher the professionals' perception of tax uncertainty, the greater their tendency to provide aggressive tax advice. Therefore, H3 is supported.

This finding suggests that ambiguity in tax regulations does not always lead to cautious behavior as proposed by classical decision-making theories. Instead, professionals may interpret regulatory ambiguity as an opportunity to justify more aggressive positions, especially when enforcement appears inconsistent. This aligns with previous research *e.g.*, [Brühne & Schanz, \(2022\)](#), which shows that under high ambiguity, practitioners sometimes exploit interpretive gaps rather than adopt conservative approaches.

Overall, the statistical evidence confirms that uncertainty plays a central role in shaping advisory behavior. Rather than functioning solely as a deterrent, ambiguity can encourage professionals to push the boundaries of compliance, depending on confidence, organizational culture, and incentives.

The perception of tax uncertainty does not universally lead to conservative behavior as classical decision-making models might suggest. In certain organizational or regulatory contexts, ambiguity may be perceived less as a risk to be avoided and more as a window for strategic flexibility. This aligns with [Brühne & Schanz \(2022\)](#), who found that under high ambiguity, some professionals are more inclined to exploit gaps in interpretation rather than retreat from them. Rather than functioning solely as a deterrent, tax uncertainty can serve as a catalyst for calculated aggressiveness—particularly when enforcement is perceived as inconsistent or discretionary.

A possible explanation is rooted in tax professionals' confidence in their own judgment: they may feel that if regulations are unclear, the burden of proof lies with tax authorities, allowing greater defensibility. This self-assurance effect is backed by studies such as [Camerer & Weber \(1992\)](#), indicating that regulatory ambiguity can serve as a shield for aggressive planning. Moreover, confidence may be higher among professionals within integrated-structure firms, who have access to audit insights facilitating robust defense of aggressive strategies.

However, an alternative perspective is that aggressive advice is correlated with overconfidence bias, a well-documented phenomenon in professional judgment that may flourish under ambiguity ([Tran et al., 2023](#)). Another confounder could be the firm's risk

culture or training that implicitly encourages assertive action under uncertainty a factor the current model does not control for. This suggests that perceived uncertainty does not always equate to conservativeness; rather, it may embolden a subset of professionals, especially when supported by internal systems or norms.

It is also possible that aggressive advice under uncertainty is driven by compensation structures. If advisors are incentivized based on client satisfaction or revenue regardless of risk then uncertainty becomes a trigger rather than a deterrent. Future research should therefore model or measure incentive alignment and firm-level risk appetite to clarify whether aggressive behavior under uncertainty is contextually motivated.

In summary, while prior literature emphasizes caution, our finding posits that ambiguity can spur aggression when accompanied by confidence, internal support, or economic incentives. This highlights the importance of integrating cognitive bias literature and firm-level attributes in understanding tax behavior under uncertainty.

Tax Uncertainty Mediation

The results of the mediation test show that tax uncertainty assessment significantly mediates the relationship between joint provision of audit–tax services and aggressive tax advice, with an indirect effect coefficient of 0.336, a t-statistic of 3.987, and a p-value of 0.000 (<0.05). This confirms that H4 is supported.

This finding indicates that structural integration alone does not fully explain professionals' tendency to provide aggressive tax advice. Instead, integration works indirectly by shaping how professionals perceive regulatory ambiguity. When uncertainty is perceived as manageable or defensible, it becomes the mechanism through which integration influences advisory behavior.

Overall, the mediation analysis strengthens the theoretical argument that cognitive processes—particularly uncertainty assessment—are critical pathways linking organizational design to professional conduct. Thus, the model provides empirical evidence that perceptions of risk and ambiguity are not merely contextual factors but central drivers of aggressive tax behavior.

The role of tax uncertainty assessment as a mediator reveals that professional behavior is not shaped by structural integration alone, but also by how that integration alters individual risk perception. When audit and tax services are delivered jointly, tax professionals may develop a heightened sensitivity to regulatory ambiguity due to increased proximity to auditors' judgment criteria. This shared environment can blur interpretive boundaries, encouraging professionals to reassess where compliance ends and strategy begins. Rather than acting cautiously, professionals may use that ambiguity as justification for bolder advice. This aligns with the perspective offered by [Kahneman & Tversky \(1979\)](#) prospect theory, where individuals take more risks when outcomes are framed within uncertain loss-avoidance contexts.

The going concern report accompanying the last set of fraudulently presented financial statements is associated with a greater likelihood of enforcement action against the auditor. This finding is consistent with counterfactual reasoning theory, which posits that auditors may be penalized for documenting their awareness of fraud risk when the financial statements are later determined to be fraudulent. This underscores the importance of professional vigilance in facing fraud risk and the relevance of regulatory oversight on auditor behavior ([Eutsler et al. 2016](#)).

Alternative explanations are plausible. Mediation could be partly driven by selective assignment practices, where high-stakes clients are routed to integrated teams, skewing uncertainty and advisory patterns simultaneously. Or, internal training or policy communications common in integrated structures may condition professionals to view uncertainty as an opportunity rather than a constraint. Evaluating incentives, client risk profiles, or training regimes would be necessary in future designs to test these possibilities.

Nevertheless, this mediation effect extends theoretical understanding by showing that integration influences outcomes through cognitive processes, not just structural channels. This underscores the need for models that incorporate psychological pathways when studying organizational design effects. While direct effects may be modest, the mediated effect demonstrates that internal perceptions are a powerful driver.

In conclusion, this study confirms that the path from service integration to aggressive advice runs through perceptions of uncertainty. Policy and management implications include the importance of controlled training, transparent communication about risk, and awareness of how integration may unintentionally create normative environments encouraging aggressive tax positions. Future research could examine boundary conditions, such as firm risk culture, leadership, or client-type as moderators.

CONCLUSION

This study demonstrates that the integration of audit and tax services within the same firm structure influences the aggressiveness of tax advice, both directly and through the mediating role of tax uncertainty assessment. While the findings provide empirical support for the relationship among structural integration, perceived uncertainty, and professional behavior, their significance extends beyond statistical outcomes. Theoretically, this study highlights that organizational structure shapes not only decision processes but also internal risk perception indicating that professional judgment in tax matters is as much psychological as it is procedural. The presence of an integrated service structure may not always encourage conservatism; in some contexts, it can facilitate sophisticated, aggressive strategies under the guise of internal legitimacy.

From a policy perspective, these findings raise concerns about unchecked service integration and its potential to obscure ethical boundaries. Regulators and firm leadership must ensure that joint service environments are accompanied by clear role separations, ethical guidelines, and conflict-of-interest protocols. Professional development programs should include training on how internal proximity may bias judgment, especially under ambiguous tax regulation. These findings call for a reevaluation of independence standards in multidisciplinary service environments, particularly in emerging economies where oversight may be uneven.

Despite its contributions, the study is not without limitations. First, the cross-sectional nature of the data limits the ability to infer causality or observe long-term behavioral trends. Second, the use of self-reported measures may introduce bias, especially in areas as sensitive as tax aggressiveness. Third, the study does not incorporate control variables such as firm size, client type, or compensation structure, which may act as confounders. Finally, the sample is limited to public accounting professionals in one city, potentially affecting generalizability.

Future research should explore whether these dynamics differ across firm sizes, client risk profiles, or industry sectors. Longitudinal or experimental designs may provide deeper insight into how integration influences ethical decision-making over time. Additionally, qualitative studies could explore how professionals rationalize aggressive behavior within integrated

environments, especially under internal or client pressure. As service integration becomes the norm in modern accounting firms, understanding its subtle impacts on professional conduct becomes not only timely but essential.

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