

Identifying the determinants of tax following intention with emphasis on the theory of planned behavior

Qasim Rahman Hameed¹, Sahar Sepasi², Behrooz Khoda Rahmi³, Deghan Nayeri⁴
^{1,2,3,4}Department of Accounting, Tarbiat Modares University, Iran

ABSTRACT

This research aims to identify the determinants of tax compliance intention, focusing on the theory of planned behavior. This research is practical in its objective and causal in its method. The data collection method was a questionnaire survey with confirmed validity and reliability. The statistical population of this research includes all managers and owners of small and medium enterprises in Iraq, and because the company is unlimited, a sample of 384 companies was studied. The research results show that attitude, perceived behavioral control, and patriotism towards tax compliance are significantly positively related to the intention to facilitate the payment of sales tax among small and medium enterprises.

Keywords: Tax compliance, subjective norms, tax attitude, patriotism, planned theory.

Corresponding Author:

Sahar Sepasi

Department of Accounting, Tarbiat Modares University, Iran

E-mail:- sepasi@modares.ac.ir

1. Introduction

Governments need financial resources to meet the needs of many people, such as employment, security, social security, and political and economic stability [1]. Government revenues can be divided into two broad groups: tax and non-tax revenues [2]. In the budgets of oil-exporting countries, petroleum exports, and petroleum products are the largest source of government revenue [3-6]. In contrast, tax revenues are the most acceptable and economically viable type of revenue; in many countries, tax revenues are more important than other significant sources of revenue [7, 8]. With the curtailment of oil revenues, the need for public sector financing through taxes has increased [9- 11]. In contrast, tax revenues are the most acceptable and economically appropriate type; in many countries, tax revenues are more important than other significant sources of revenue. With the curtailment of oil revenues, the need for financing the public sector through taxes has increased [12]– [14]. Today, tax revenues are one of the most important sources of revenue in the budget of most governments, especially in developed countries, and are also considered an economic index in countries [15]. They have private benefits that are reduced because taxes mean the transfer of resources and purchasing power from people to the state [16]. Therefore, from an economic point of view and in the individual's interest, taxation could be more pleasant. So, they always try to avoid paying taxes or avoid them according to their economic logic [17], [18]. In other words, people in the community try to take advantage as much as possible of the goods and services provided by governments, which are funded primarily by taxing individuals in a community [19], [20]. Tax evasion is one of the most important underground activities in the economy, and economists are increasingly trying to analyze this phenomenon. This issue is important because, in many crime studies, the underground economy is equated with tax evasion [24]. Throughout history, entrepreneurs, government employees, service providers, and other institutions have had to pay taxes, and no one can avoid paying taxes [21]. An important statement is, "There is nothing but death and taxation [14]. This sentence confirms that the legal income of every citizen is taxable, and he is obliged to pay his taxes. Today, the state's role in countries is increasing, and it must be taxed to finance its activities. But for various reasons, they need help collecting tax revenue. One of the main reasons for Modian tax compliance [20-21]. Despite efforts to improve tax revenues on GDP, including rules, tax change, control, and monitoring of taxpayers through bank transactions. This needs to be realized, and Iraq is affected by the abnormal phenomenon of tax evasion [24]. Researchers have provided various definitions of tax obedience. Most of them point to Tax obedience as taxpayers filing their tax returns at the right time and

correctly reporting their tax liability following laws, regulations, and decisions. According to Modian, tax obedience is to make tax returns appropriately and meet their tax obligations. In most tax systems, there is a precise, clear, and operational definition of tax obedience, but it needs to be clarified in Iraqi law. Researchers believe that the problem of tax noncompliance is as old as taxation [25]. So, identifying tax noncompliance factors is critical for countries, governments, individuals, and tax authorities. Governments seek to provide more public services to citizens by reducing wastefulness [26]. In Iraq, as in other developing countries, noncompliance with tax laws is a significant challenge for the government and policymakers because the country's tax system is under constant reform and focuses mainly on law enforcement to ensure the proper performance of the tax system. For this reason, medians do not support voluntary obedience and face problems [27]. The Iraqi government should raise the organization of tax affairs to the highest level to ensure coordination, publicity, transparency, and fairness to taxpayers, apply compliance risk management, create favorable conditions for voluntary taxpayer compliance, and modify procedures. Individual and societal norms have the most significant influence on tax noncompliance by entrepreneurs. The prevalence of the culture of noncompliance and the opportunities taxpayers have for noncompliance are also among the factors influencing entrepreneurs' tax noncompliance behavior. [28] pioneered a fact examining people's intentions in their study. However, there are also critical voices, such as [29], that point out this theory's broad and general nature in explaining the relationship between attitudes, mental norms, behavioral intentions, and actual behavior. From a fiscal perspective, public beliefs are influenced by attitudes, and individuals' subjective norms are placed. More importantly, [30] proposed the theory of planned behavior as an extension of the theory of reasoned action, which states that attitudes, mental norms, and perceived behavioral control are the most important determinants of people's intentions. Indeed, the theory of planned behavior is one of the most widely used social psychological models behavioral researchers use to explain and predict behavior [31] The theory of planned behavior goes back to the theory of expected utility, which proposed multiple explanatory variables to explain an individual's behavior [32], [33]. When this is true, behaviors are easily predictable, and the theory of planned behavior. It can help tax authorities predict and support taxpayers' behavior. Following the arguments of [30], the most appropriate model to gain deeper insight into taxpayers' behavior is the theory of planned behavior since it is usually used to study society's behavior in other types of behavior [19], so in this study, we try to identify the factors that determine taxpayers' intention to comply with tax regulations, focusing on the theory of planned behavior.

2. Literature Review and theoretical framework

2.1. Tax compliance

Tax compliance is the subject of many researchers, so its definition is determined in different ways depending on the nature and subject of the study. Tax compliance is accurately reporting income and expenses following tax regulations [34], [35]. Taxpayers' timely compliance with tax obligations without the intervention of tax authorities indicates taxpayers' voluntary compliance with tax laws [36]. and tax knowledge, ethics, regulatory environment, and other situational factors at a particular time and place determine taxpayers' willingness to comply with tax laws. One of the definitions of compliance is based on taxpayers' duties and obligations, which are classified into four broad groups, including registering in the tax system, filing returns, maintaining and submitting accounting records, and paying tax liability on time. When a taxpayer fails to comply with one of his obligations, his behavior is considered a form of noncompliance. There are two forms of tax noncompliance: tax evasion and tax avoidance. Both are committed to avoiding paying taxes, and the amount of tax the taxpayer pays is less than the amount he is legally required to pay. Tax evasion is a deliberate act aimed at disobeying the law to reduce tax liability, which is done by accepting illegal agreements. However, tax avoidance, noncompliance, or incomplete tax returns, which can be intentional or due to errors, misinformation, misunderstanding, and negligence, are done through legal channels [37].

2.2. Theory of planned behaviour

The theory of planned behavior is a fully functional model that can help to understand better how and why people's behavior changes. In this model, people's behavior is assumed to be planned, and therefore, their conscious behavior is predicted [30]. The theory of planned behavior is consistent with the theory of logical action. These two theories are based on the assumption that people make rational and reasoned decisions by evaluating available information (Ajzen and Fishbein, according to the Theory of Planned Behavior (1980), the intention is the best way to predict and explain people's behavior. This is because the stronger people's

motivation to behave, the better their performance [10, 8, 14]. Behavioral intention is determined by a person's attitude toward behavior, mental norms, and perceived behavioral control. Behavioral beliefs influence a person's attitude toward the behavior and express positive or negative feelings about performing the target behavior. In this model, people's behavior is assumed to be planned, and therefore, their conscious behavior is predicted [30]. The theory of planned behavior is consistent with the theory of logical action. These two theories assume people make rational and reasoned decisions by evaluating available information [2]. According to the Theory of Planned Behavior, intention is the best way to predict and explain people's behavior. This is because the stronger people's motivation to behave, the better their performance. Behavioral intention is determined by a person's attitude toward the behavior, mental norms, and perceived behavioral control. Behavioral beliefs influence a person's attitude toward the behavior and express their positive or negative feelings toward performing the target behavior.

2.3. Development of research hypotheses

Therefore, attitudes toward tax honesty need to be clarified and can be considered a vague construct [38]. This is also agreed by [39], who has shown that attitudes toward taxes are full of complexity and that the social structure of taxes influences tax compliance behavior. In this context, attitude refers to a person's evaluation of desirability or dissatisfaction [20]. It can be assumed that a positive attitude of taxpayers toward paying taxes guarantees the possibility of paying more taxes [40]. Indeed, attitudes toward taxes are shown to be the most important determinant of individuals' tax compliance or noncompliance [24]. However, this does not guarantee that they will comply or not comply with tax regulations. It can be assumed that the positive attitude of taxpayers toward paying taxes guarantees the possibility of paying more taxes [40]. Indeed, attitudes toward tax are shown to be the most critical determinant of tax compliance or noncompliance among individuals [24]. However, this is not a guarantee of their tax compliance or noncompliance. Taxpayer attitudes are taxpayers' statements or thoughts about interpreted events. Taxpayer attitude toward tax compliance is a positive or negative feeling of taxpayers directly determined by taxpayer beliefs about tax compliance. found that taxpayers' intention to pay taxes is higher when taxpayers have a positive attitude toward paying taxes. Empirical evidence shows that attitudes toward taxes mainly determine people's tax compliance or noncompliance. Other studies also showed a positive attitude toward tax honesty. Therefore, the first hypothesis of the study is formulated as follows:

Hypothesis 1: *Attitude towards tax honesty is significantly positively related to the intention to tax honesty of sales revenue among small and medium enterprises in Iraq.*

A mental norm is a person's view that can influence the perception of his behavior. Mental norm is the social pressure perceived to perform or not perform a specific behavior [30]. People behave in a way that satisfies and is accepted by those around them, such as family, friends, colleagues, and superiors. If the people around them disapprove of the behavior, the person will not perform the behavior [41]. The mental norm is a form of perception or the person's view of the beliefs that come from others that enables the person to perform a behavior. Whether he gives or not, this behavior is performed with the approval, endorsement, and acceptance of those around him [42]. The mental norm related to taxes can be the motivation for a person to perform a certain behavior. For example, families that support each other in paying taxes can be a good example for other family members because family support is associated with the perception that taxes are of great benefit [43]. mental norms are therefore defined as global social pressures from people close to the person (family and friends) that can influence the person's moral decision making, and the person's decision making may be at odds with what is considered the correct norm [30]. If a person is convinced that those close to him or her believe that should behave that way, he or she will behave that way [26]. Kirchler (2007) has supported this argument concerning tax compliance behavior. In the sense that the group to which a person belongs influences his or her behavior. In other words: If the taxpayer is convinced that others are evading or cheating on their taxes and are not complying, they will also tend in the same direction [44]. In general, the fact that nonconformity is considered more socially acceptable leads to a lower subjective identification probability [35], and subjective norms, in this case, refer to others, according to [30] If people are convinced that those close to them believe they should behave this way, they will behave in a certain way. In general, nonconformity that is considered more socially acceptable leads to a lower subjective identification probability [44]. and subjective norms in this case relate to others according to [30]. In previous studies, the relationship between subjective norms and tax evasion has been examined by several authors [38]. In particular, [45] claimed that the belief of widespread noncompliance among taxpayers and the approval of their reference groups can lead to noncompliance, we

showed that the opinion of others is the main driver of commitment change. Therefore, the second hypothesis of the study is formulated as follows:

Hypothesis 2: *Subjective norms related to tax compliance are significantly positively related to sales tax compliance intention among small and medium enterprises in Iraq.*

2.3.3. Perceived behavioral control and control compliance

The established basis for perceived behavioral control is the individual's beliefs about the presence of resources and opportunities, and barriers to a particular behavioral engagement [26]. According to [35], higher levels of perceived behavioral control are likely to lead to better performance. Behave differently. In particular, perceived behavioral control has yet to be examined in studies of tax honesty. Based on some limited studies examining the role of perceived behavioral control in tax compliance, [42] found a negligible effect of perceived behavioral control on tax compliance intention for the sample studied. According to [43], perceived behavioral control is not the degree of ease/difficulty, evasion, or fraud in paying taxes but the degree of control that taxpayers are convinced they have in complying with tax laws when conducting certain activities. Perceptions of law enforcement, tax audits, the use of tax administration technology, and high tax penalties drive taxpayer compliance behavior. These also help prevent negative consequences in the future. The impact of perceived behavioral control on taxpayer compliance represents the effort to establish a link between taxpayers' current actions and future outcomes. In this context, individuals with high levels of perceived behavioral control are more likely to comply with sales taxes. Therefore, the third hypothesis of the study is formulated as follows:

Hypothesis 3: *The level of perceived behavioral control related to tax compliance is significantly positively related to the intention to comply with sales taxes among small and medium enterprises in Iraq.*

2.4. Patriotism and taxation

In predicting taxpayers' tax compliance behavior, patriotism, which implies love of country, is essential. Taxpayer patriotism can potentially encourage higher tax payments domestically and discourage taxpayers from moving to other countries in response to higher tax rates. Such a reduction in tax base flexibility provides the opportunity for demand for higher tax levels in countries [46]. Therefore, taxpayers' patriotism and desire for their country's development are reflected in their taxpaying behavior. Patriotic feelings play an essential role in every aspect of life, including tax compliance [46], so social identity theory should be used to study patriotism and its effects on tax compliance [35]. Regarding the effects of patriotic commitment on democracy, two types of constructive and blind patriotism can be distinguished [45]. Various researchers have shown that constructive patriotism consists of praising some government actions and exposing and criticizing others regarding positive change and adjustment. In contrast, blind patriotism refers to the promotion of unconditional approval of the government, the avoidance of analysis and criticism, and essentially the consolidation of unqualified loyalty and symbolic activities. Therefore, blind patriots are those who are nationalistic and support the glory of their nations and hegemony over other nations. According to other studies, patriotism leads to economic recovery and national development, and patriotic people tend to pay for public transportation in their country. taxpayer patriotism has a positive relationship with increasing tax compliance, and patriotic taxpayers view noncompliance as unpatriotic. These results are consistent with the findings of [47]. However, other studies, such as [45], did not find a significant direct effect of patriotism on tax honesty. Based on the above literature, few empirical studies have addressed the relationship between patriotism and tax honesty. In summary, patriotism is an essential determinant of tax compliance, although this has not been consistently demonstrated because there are few studies on patriotism and income tax compliance. As far as researchers are aware, there are no studies on the relationship between patriotism and sales tax compliance:

Hypothesis 4: *Patriotism is significantly positively related to the intention to tax sales revenues at small and medium-sized businesses in Iraq.*

2.5.3 Innovation in research

One issue that has not been considered in research in Iraq is the effect of factors such as attitude, mental norms, patriotism, and the extent of perceived behavioral control related to tax honesty on tax honesty intention. Considering the specific conditions and environmental characteristics of Iraq as a developing country with an emerging economy, the study and research related to the impact of such factors on tax compliance intention may have different effects and results compared to other developed countries, which requires There is a lot of research in this area, therefore, the present research will have more knowledge than previous studies.

3. Method

This study used the field method to collect data to identify factors that determine taxpayers' intention to comply with tax laws, focusing on the theory of planned behavior. The present research is a descriptive survey in which the nature of the data is quantitative, according to the instrument of data collection (questionnaire) and is practical due to the purpose of the present research and is collected from the managers and owners of small and medium enterprises through a (closed) questionnaire. The questionnaire of this research consists of two main parts and one sub-part:

- A. Cover letter: This section presents the purpose of collecting data through the questionnaire and the need for the respondent's cooperation in providing the required data. To this end, the value of the data obtained from the questionnaire is emphasized so that the respondent can answer the questions appropriately.
- B. Respondent characteristics: this part of the questionnaire refers to the demographic characteristics of the respondents (including gender, education level, and age).
- C. Questions related to the research variables:

Table 1. Composition of questionnaire questions

No questions	Source	Variables
1-7	Bani Khaled and colleagues	tax compliance
8-9-10-11	(Beck and Agen, 1991; Babak and Hatfield)	Mental norm
12-13-14-15	(Beck and Agen,) 1991	Perceived behavioral control
116-17-18-19-20-21	(McGregor and Wilkinson,	patriotism
22-23-24	(Beck and Agen)	attitude
	24	sum

3.1. Reliability of research measurement tools

In this research, Cronbach's alpha method is used to measure reliability, so it is limited to its explanation, and other forms are avoided: This method is used to calculate the internal consistency of measurement instruments, including questionnaires or tests that measure different characteristics. The answer to each question may have different numerical values in such tools. To calculate the Cronbach's alpha coefficient, one must first calculate the standard deviation of the scores of each subset of the questions of the questionnaire and the standard deviation of the totality of the questions (subsets), and then find the alpha coefficient of each subgroup of questions using the following formula:

Table 2. Variables and reliability coefficient.

Cronbach's alpha	Main structures
tax compliance	.0914
Attitude	0.810
Mental norm	0.758
patriotism	0.890
Perceived behavioral control	0.858

3.2. Statistical methods

The structural equation modeling technique (SEM) was used in this research. In addition, the partial least squares (PLS) method was used in this research to analyze the data.

3.3. Statistical population and research sample

The statistical population of this research is managers and owners of small and medium enterprises.

Sample Size:

$$n = \frac{z_{1-\alpha}^2 pq}{\epsilon^2}, (\epsilon = 0.05)$$

$$n \geq (0.25 * 1.96)^2 / (0.05)^2$$

Maximum variance = 0.25; Confidence level = 0.95

Since there is no exact information about the number of the population, a random sample was drawn using the Cochran formula and considering the unlimited population, which corresponds to 384 models. Since the size of the statistical population is assumed to be unlimited, this calculation is performed with an error level of 5%, so the statistical sample size is considered to be 384 people according to the above formula.

4. Results and discussion

4.1. Demographic characteristics

The time domain of distribution and collection of questionnaires is the winter of 1401. Subject area: The subject area of the current research is in the field of tax research. Gender: In general, out of 384 people in the sample of this study, 259 people (67%) are men and 125 people (33%) are women.

Table 3. Frequency of participants by gender

Percentage	Frequency	Gender
67%	259	Men
33%	125	Women
100%	384	Total

Education: In terms of education, 202 individuals (53%) have a bachelor's degree or lower. 145 individuals (38%) have a master's degree and 37 individuals (10%) have a doctorate.

Table 4. Frequency of education of participants

Education	Participants	Drgree
53%	202	Bachelor and below
38%	145	Masters
10%	37	phd
100%	384	total

Age: 84 individuals (22%) of participants are less than 25 years old; 189 individuals (49%) are between 25 and 30 years old; and 111 individuals (29%) are 30 years old or older.

Table 5. Age frequency of participants

percentage	frequency	age
22%	84	>25
49%	189	25- 30
29%	111	more than 30
100%	384	total

Work experience: 79 (21%) of the participants have less than 5 years of work experience. 124 people (32%) also have 5 to 10 years of work experience. 96 individuals (25%) have between 10 and 15 years of work experience and 85 individuals (22%) have more than 15 years of work experience.

Table 6. Frequency of work experience, frequency of work experience, percent day

percentage	frequency	Work experiences
21%	79	Less than 5 years
32%	124	10 to5 years
25%	96	15 to 10 years
22%	85	More than 15 years
100%	384	total

4.2. Validation of the model using the partial least squares method

The partial least squares method was used to validate the model. The model's results in standard estimation mode show the direction and intensity of the relationship between the variables. The development of the PLS Smart software for standard estimation is shown in the figure below. To test the significance of the relationships between the variables of the method 1 model, autocorrelation (bootstrap) was used, which gives the t-statistic. If the value of the bootstrapping statistic is more significant than 1.96 at a 5% error level, the observed correlations are substantial. The t-statistic and bootstrapping values used to measure the significance of the relationships are also shown in the figure below. The external model or measurement model of Homorex is a confirmatory factor analysis in Lisrel or Emos software. This part of the model shows that the items used to measure each main factor have sufficient validity.

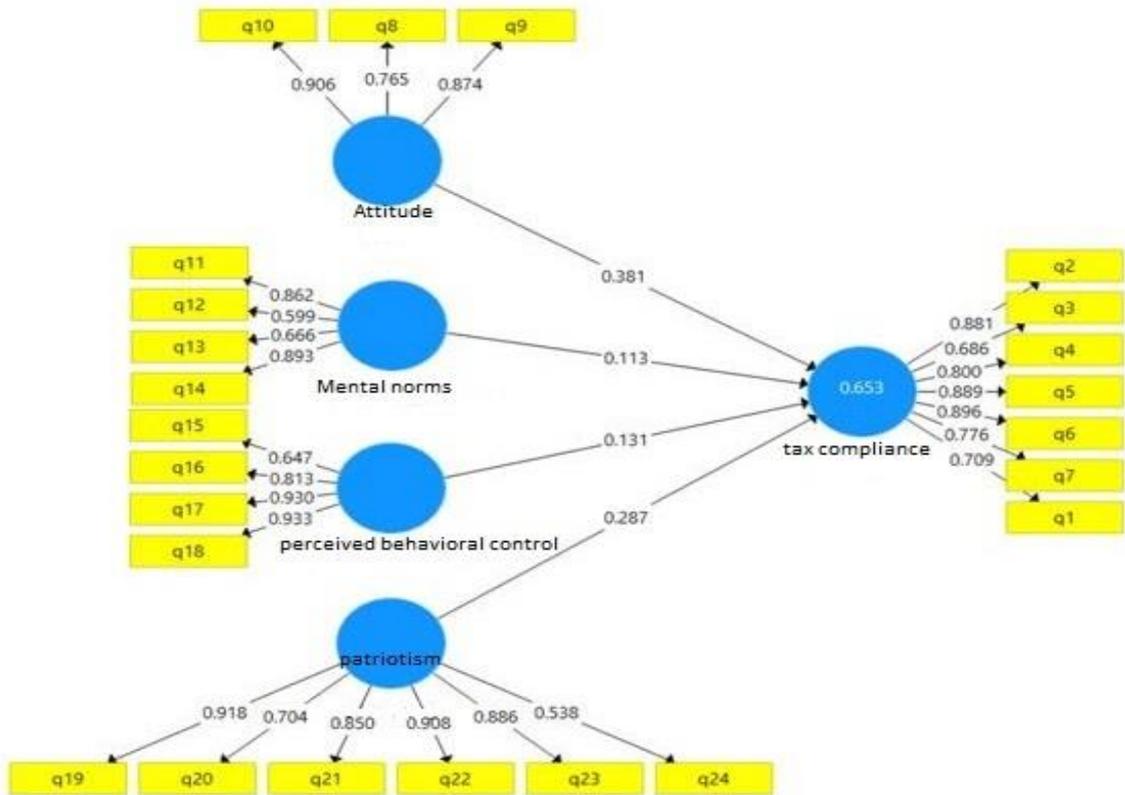


Figure 1. Model validation output with partial least squares method

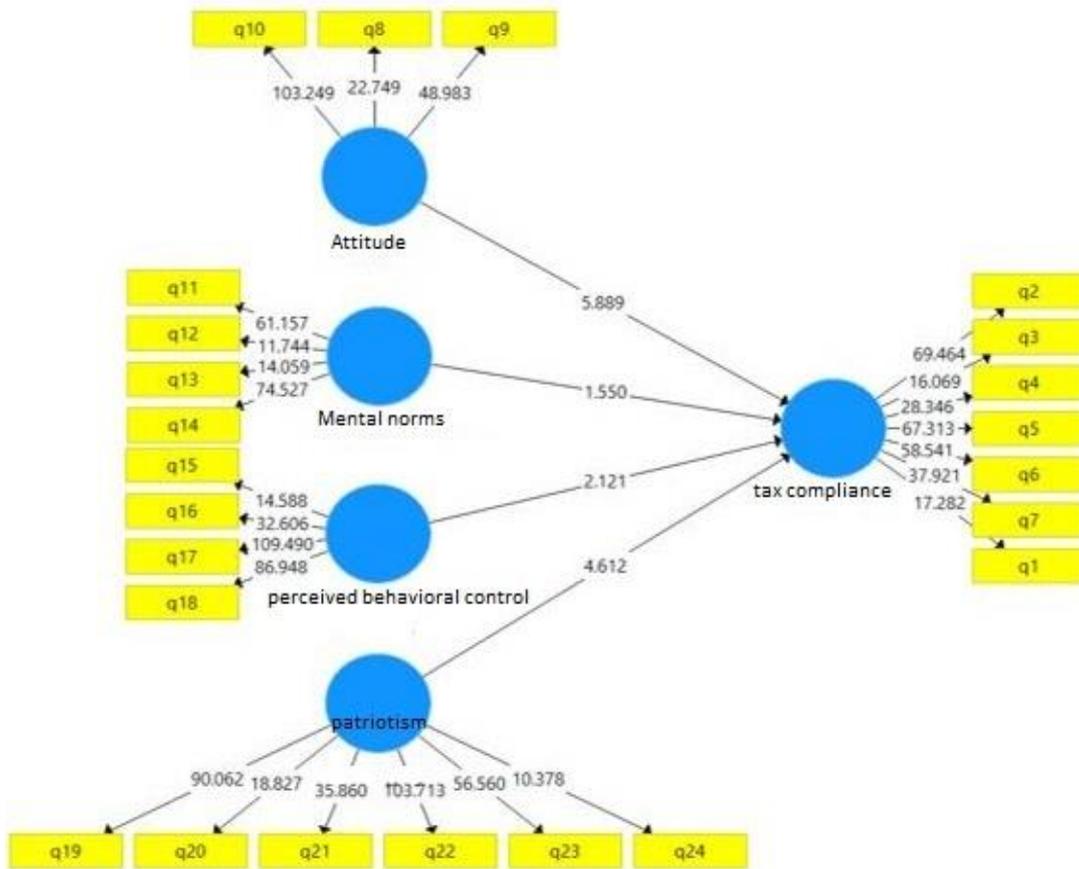


Figure 2. Significance of variable relationships with partial least squares method (bootstrapping)

Table 7. The results of the external model (measurement model)

object	factor load	The standard deviation	t statistic	P Values
tax compliance	0.709	0.041	17.282	0.000
tax compliance	0.881	0.013	69.464	0.000
tax compliance	0.686	0.043	16.069	0.000
tax compliance	0.800	0.028	28.346	0.000
tax compliance	0.889	0.013	67.313	0.000
tax compliance	0.896	0.015	58.541	0.000
tax compliance	0.776	0.020	37.921	0.000
Atitude	0.765	0.034	22.749	0.000
Atitude	0.874	0.018	48.983	0.000
Atitude	0.906	0.009	103.249	0.000
Mental norms	0.862	0.014	61.157	0.000
Mental norms	0.599	0.051	11.744	0.000
Mental norms	0.666	0.047	14.059	0.000
Mental norms	0.893	0.012	74.527	0.000
Perceived behavioral control	0.647	0.044	14.588	0.000
Perceived behavioral control	0.813	0.025	32.606	0.000
Perceived behavioral control	0.930	0.008	109.490	0.000
Perceived behavioral control	0.933	0.011	86.948	0.000
patriotism	0.918	0.010	90.062	0.000
patriotism	0.704	0.037	18.827	0.000
patriotism	0.850	0.024	35.860	0.000
patriotism	0.908	0.009	103.713	0.000
patriotism	0.886	0.016	56.560	0.000
patriotism	0.538	0.052	10.378	0.000

The values of the observed factor loadings are more significant than 0.5, and the t-statistic is more significant than 1.96. Therefore, the external model (measurement) is confirmed. 8.4 External Model Validity (Measurement) Three indicators were used to assess the validity of the external model (measurement). Convergent validity, Composite reliability, Cronbach's alpha And RHO Reliability or Spearman's internal correlation of the indices 1 Convergent validity It shows how the variables of a structure are matched to each other. Convergent validity is assessed based on the 2-external model and by calculating the average variance (AVE). The measure AVE shows the average variance between each construct and its indicators. In simpler terms, AVE shows the correlation of a construct with its indicators. The higher the correlation, the better the fit. Fornell and Ellerker (1981) consider that the measurement model has convergent validity if the criterion AVE is higher than 0.5.

4.3. Composite reliability

(CR) in structural models is considered a better and more valid criterion than Cronbach's alpha because when calculating Cronbach's alpha for each structure, all indicators with the same importance are included in the calculations. However, the indicators with higher factor loadings are included when calculating combined reliability. It is more important and makes the CR values of the indicators with higher factor loading more important and makes the CR values of the constructs a more realistic and accurate measure than Cronbach's alpha. For convergent validity and composite reliability. (CR) should have the following relations: $CR > 0.7$; $CR > AVE$; $AVE > 0.5$ 1 relation In 2015, Ringel and colleagues introduced A_ RHO to respond to criticisms of Pearson correlation coefficients between indicators in Cronbach's alpha and reliability formulas.

Table 8. External validity of research constructs

Main Construct	Cronbach's alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)
Tax compliance	0.914	0.937	0.929	0.655
Attitude	0.810	0.851	0.886	0.723
Mental norm	0.758	0.828	0.846	0.585
patriotism	0.890	0.928	0.919	0.660
Perceived behavioral control	0.858	0.914	0.903	0.704

It shows the correlation between indicators with a Likert scale as a spectrum with a scale. According to Ringel 2016, the Spearman correlation value of the items in this test should be more than 0.7 to prove that the order or continuity of the spectrum does not affect the reliability. The average variance extracted (AVE) is more significant than 0.5, so convergent validity is given. Cronbach's alpha is more significant than 0.7 for all variables, so that reliability is confirmed. The combined reliability value (CR) is also more remarkable than the AVE and is above the threshold of 0.7 in all cases, so the third condition is also met. The reliability of a_rho for all variables in this study has met the threshold value of 0.7 according to the research model, and the reliability of the research model is also confirmed based on this index.

4.4. Divergent validity

4.1. Fornell Al-Raker

The matrix of divergent validity is shown in the table below:

Table 9. Discriminant validity assessment matrix

	1	2	3	4	5
Tax compliance	0.809				
Attitude	0.742	0.850			
Mental norm	0.714	0.785	0.765		
patriotism	0.700	0.643	0.666	0.812	
Perceived behavioral control	0.683	0.668	0.844	0.706	0.839

As can be seen in Table 7, the square root of AVE for each structure (primary diameter) is more significant than its correlation with other model structures, indicating acceptable variance validity for the measurement models. After ensuring the measurement models through the test of reliability, convergent validity, and divergent validity, the results of the external model can be presented.

4.2. Heterotrait-monotrait ratio (HTMT) index of divergent validity

According to the studies of Hensler (2015), the divergent validity for the factor analytic model or the external model of the research is fully confirmed when the HTMT value for each pair of variables is less than 0.9.

Table 11. Results of the structural part of the model

	1	2	3	4
Tax compliance				
Attitude	0.787			
Mental norm	0.768	0.831		
patriotism	0.717	0.720	0.775	
PERCEIVED BEHAVIORAL CONTROL	0.687	0.759	0.769	0.767

By confirming the convergent and divergent validity tests, it can be claimed that this reflective external model has construct validity.

4.3. Internal model (structural part)

The relationships between the main structures of the research were examined in the structural part. Based on the observed path coefficient and the t-statistic value (bootstrapping), the relationships between the variables

can be interpreted as follows: The above table shows the results of proving and rejecting the research hypotheses. As we know, to prove a hypothesis, it is enough that the t-value or t-statistic is above 1.96, then with an error level of 5% or a confidence level of 95%, it can be claimed that the hypothesis is proven. On the other hand, a hypothesis can be proven by the p-value statistic such that the hypothesis is confirmed and proven if this value is below 0.05, and the hypothesis is rejected if it is above 0.05. Based on the results in the table above, all research hypotheses have a significance level of less than 0.05. Therefore, these hypotheses are confirmed and accepted with 95% confidence.

Table 12. R-Square

	R Square	R Square Adjusted
Tax compliance	0.653	0.650

4.4. Validity of the internal model (structural part)

To test the suitability of the structural model, four criteria are used, including 1. 2QR criterion and 2nd criterion 3. evaluation of collinearity 4. effect size Determination of the coefficient of fit of the structural model (2R): This coefficient expresses the percentage of changes in the function due to the independent variable. The coefficient of determination varies between zero and one and is justified as follows. When the coefficient of determination is zero, the regression line has never been able to attribute changes in the function to independent changes. In other words, if the dependent variable changes by If the regression relationship is not explained, the value of the coefficient of determination is zero. If the coefficient of determination equals one, the regression line could change the variable exactly.

4.5. Relate the dependent to the independent changes

Three values of 0.19, 33, and 0.67 are used to measure weak, moderate, and strong, respectively. Stone-Geisser criterion for structural model fit (2Q): This criterion indicates the model's predictive power. If the value of 2Q reaches three values, namely 0.02, 0.15, and 0.35, respectively, in the case of a dependent (endogenous) variable, it means weak, moderate, and strong predictive power of the variable or the independent (exogenous) variable, respectively, concerning this dependent variable. Thus, it measures the quality of the structural model for each endogenous block.

Table 13. redundant index

Main construction	SSO	SSE	$Q^2 (=1-SSE/SSO)$
Tax compliance	2,688.000	1,686.058	0.373
attitude	1,152.000	1,152.000	
Mental norms	1,536.000	1,536.000	
Patriotism	2,304.000	2,304.000	
PERCEIVED BEHAVIORAL CONTROL	1,536.000	1,536.000	

Valuation of collinearity (VIF): variance inflation factor; in linear regression models, one of the methods used to estimate the model parameters is the least squares method. One of the issues and problems that can challenge this method is the presence of a phenomenon called collinearity. One widely used method to determine the presence of collinearity is the variance inflation factor (VIF). This factor indicates how much the variance of the estimated coefficients is inflated compared to the case where the estimated variables have no linear correlation. The value of the VIF should be less than 5 to ignore the existence of collinearity between the constructs. According to Table 4-17, the value of the VIF coefficient is less than 5. Table 14. The value of the VIF coefficient to evaluate the presence or absence of collinearity between the central constructs in tax compliance research. Effect size (2F): The effect size can be assessed using Cohen's Fsquare for each effect in the path model.

Table 14. VIF values to evaluate the presence or absence of collinearity between research constructs

Main construction	Tax compliance
attitude	2.815
Mental norms	4.007
Patriotism	2.232
PERCEIVED BEHAVIORAL CONTROL	4.016

Effect size; F as the ratio of changes 2, R is part of the variance of the endogenous variable expressed by F in each case 2 The unexplained area remains in the model. According to Cohen, values of 0.02, 0.15, and 0.35 for R^2 has a small, medium, and large effect, respectively. We first run the model entirely and note the values to calculate this coefficient. In the next step, we delete the independent variable of the distance we want to calculate F and rerun the model in the software.

Table 15. Effect size

Main construction	Value
attitude	0.148
Mental norms	0.007
Patriotism	0.107
PERCEIVED BEHAVIORAL CONTROL	0.012

The GOF index evaluates the fit of the overall model based on both the measurement and structural model parts. This index is calculated using the square root of the product of "average index" R^2 and "average of split indices."

$$GoF = \sqrt{(R^2) \times (\text{Communality})} = \sqrt{(R^2) \times (AVE)}$$

Since the typical value is equal to AVE in partial least square, Wetzles et al. (2009) presented the following formula. Tezelus et al. (2009) introduced three values of 0.25, 0.01, and 0.36 as weak, medium, and strong values for GOF, respectively. The value of goodness of fit in this study is equal. Therefore, the value of goodness of fit in this study is equal. Average values of the redundancy index The average values of the coefficient of determination The GOF index is equal to 0.626, so the model fits well.

$$GOF = \sqrt{0.596 \times 0.659} = 0.626$$

Average Redundancy Index Values (Community = 0.596) The average values of the coefficient of determination index (0).

The results of the first research hypothesis are consistent with the findings of [1]. They consider these norms to be a desirable tool for increasing tax compliance. The higher the mental norms of society regarding the need to pay khums and zakat, the higher the tax honesty and the better the understanding of the phenomenon of tax honesty across the country. The test of the second hypothesis of the current study shows that mental norms directly and through internalization by personal norms cannot influence tax honesty goals. The results of this study are consistent with the findings of [48] study on the relationship between subjective norms and registered office status for tax honesty. Perceived behavioral control affects tax honesty, i.e., the higher the level of perceived behavioral control regarding concealment of taxable income, the lower the tendency to be tax honest. The tendency to refrain from reporting actual income affects the level of tax honesty. The tendency of taxpayers to conceal their income is one of the most important predictors of tax evasion. To improve tax compliance behavior, it is necessary to reduce perceived behavioral control over non-compliance and the possibility of non-compliance with tax noncompliance. On this basis, governments may increase punishment, balancing it against possible abuse by tax authorities (corruption or harsh punishment) in the case of honest mistakes or taxpayer monitoring [16]. The test of the third hypothesis of the present study showed that the level of perceived behavioral control related to tax compliance has a significant positive relationship with the intention to tax sales among small and medium enterprises in Iraq; the results are consistent with the research findings of [1]. The results of the fourth hypothesis test showed that patriotism has a positive and significant relationship with tax honesty. In other words, when patriotism increases, tax honesty also increases. As for patriotism was found to have a positive relationship with the intention to participate in sales tax compliance among SMEs in Iraq. this result is consistent with previous literature [38]. This result shows that tax honesty increases with high patriotic feelings for the country. At the individual level, income tax compliance is also significantly related to tax

honesty [21, 32]; The result of previous studies on the effect of MacGregor and Wilkinson 2012, the results of the study's analysis reconfirmed the effect of patriotism on sales tax compliance participation. The results of this hypothesis are consistent with the research findings of [1], [30], [49].

5. Conclusion

After oil, taxes in Iraq are the most critical source of revenue for the country's budget. Taxes are essential for governments to regulate the macroeconomy, encourage investment, redistribute wealth in society, and generally guide policy. Therefore, the issue of tax honesty is of interest to policymakers in this area. According to the results of the research, it is found that attitude has a positive and significant relationship with tax compliance. Because taxpayer attitude and taxpayer intent affect taxpayer compliance. To fully understand the differences in taxpayer compliance behavior, one must understand the differences in taxpayer attitudes toward that behavior and the decision to comply. Generally, the more people improve their attitudes toward paying khums and zakat and their benefits in a healthy society, the more tax compliance increases and the more pessimistic they are toward tax evasion.

Declaration of competing interest

The authors declare that they have no known financial or non-financial competing interests in any material discussed in this paper.

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References

- [1] C. J. Armitage and M. Conner, "E Y cacy of the Theory of Planned Behaviour: A meta-analytic review," 2001.
- [2] Y. A. Abdullah and M. N. Bin Mansor, "The moderating effect of business environment on the relationship between Entrepreneurial Skills and Small Business performance in Iraq," *Journal of Legal, Ethical and Regulatory Issues*, vol. 22, no. Specialiss, 2018.
- [3] R. W. Maseer, N. G. Zghair, and H. H. Flayyih, "Relationship between cost reduction and reevaluating customers' desires: the mediating role of sustainable development," *International Journal of Economics and Finance Studies*, vol. 14, no. 4, pp. 330–344, 2022, doi: 10.34109/ijefs.20220116.
- [4] A. H. AL-Timemi and H. H. Flayyih, "Using Benford's law to detecting earnings management Application on a sample of listed companies in the Iraqi market for securities," *Journal of Economics and Administrative Sciences*, vol. 19, no. 73, 2013, [Online]. Available: <https://www.iasj.net/iasj/article/83413>
- [5] H. Mhaibes and H. A. Mahmood, "The differentiation in work enrichment strategies and organizational creativity function: A perspective from the leaders of the ministry of oil in Iraq," *J Sustain Sci Manag*, vol. 15, no. 5, pp. 140–150, 2020, doi: 10.46754/JSSM.2020.07.012.
- [6] H. A. Mahmoud and H. A. Mahibes, "The impact of empowerment strategies on the characteristics of work enrichment An exploratory research to the views of a sample of the leaders of the Ministry of Oil in Iraq," *journal of Economics And Administrative Sciences*, vol. 26, no. 119, 2020, Accessed: Sep. 21, 2023. [Online]. Available: <https://www.iasj.net/iasj/article/184344>
- [7] A. H. Hadi, G. R. Abdulhameed, Y. S. Malik, and H. H. Flayyih, "The influence of information technology (it) on firm profitability and stock returns," *Eastern-European Journal of Enterprise Technologies*, vol. 4, no. (13 (124)), pp. 87–93, 2023, doi: <https://doi.org/10.15587/1729-4061.2023.286212>.
- [8] H. Abdulkareem Neamah Asst Hussam Ali Mhaibes, "The Mediating Role of Managing the High Involvement Management Between Organizational Power and Negotiation Strategies Analytical Research of the Views of a Sample of Leaders of the Iraqi Ministry of Industry and Minerals," 2021. Accessed: Sep. 21, 2023. [Online]. Available: <https://www.iasj.net/iasj/article/221329>
- [9] N. S. Nikkeh, S. I. Hasan, H. S. Saeed, and H. H. Flayyih, "The role of costing techniques in reduction of cost and achieving competitive advantage in iraqi financial institutions," *International Journal of Economics and Finance Studies*, vol. 14, no. 4, pp. 62–79, 2022, doi: 10.34109/ijefs.20220104.

- [10] S. I. Ali, B. F. K. Al-taie, and H. H. Flayyih, "The effects of negative audit and audit environment on the internal auditor performance: mediating role of auditing process independence," *International Journal of Economics and Finance Studies*, vol. 15, no. 1, pp. 64–79, 2023, doi: 10.34109/ijefs.202315105.
- [11] E. Eberhartinger *et al.*, "Financial statement users' judgment and disaggregated tax disclosure," 2020.
- [12] H. R. Talab and H. H. Flayyih, "An empirical study to measure the impact of information technology governance under the control objectives for information and related technologies on financial performance | um estudo empírico para medir o impacto da governança de tecnologia da informação," *International Journal of Professional Business Review*, vol. 8, no. 4, 2023, doi: 10.26668/businessreview/2023.v8i4.1382.
- [13] S. I. Hasan, H. S. Saeed, T. K. Al-Abedi, and H. H. Flayyih, "The role of target cost management approach in reducing costs for the achievement of competitive advantage as a mediator: an applied study of the iraqi electrical industry," *International Journal of Economics and Finance Studies*, vol. 15, no. 2, pp. 214–230, 2023, doi: 10.34109/ijefs.202315211.
- [14] Z. K. Abass, T. K. Al-Abedi, and H. H. Flayyih, "Integration between cobit and coso for internal control and its reflection on auditing risk with corporate governance as the mediating variable," *International Journal of Economics and Finance Studies*, vol. 15, no. 2, pp. 40–58, 2023, doi: 10.34109/ijefs.202315203.
- [15] A. Alkhafaji, H. R. Talab, H. H. Flayyih, and N. A. Hussein, "The Impact of Management Control Systems (MCS) on Organizations Performance a Literature Review," *Journal of Economics and Administrative Sciences*, vol. 105, no. 24, pp. 1–16, 2018, Accessed: Sep. 13, 2023. [Online]. Available: <https://www.iasj.net/iasj/article/146627>
- [16] A. H. Hadi, M. N. Ali, G. A. K. Al-shiblawi, H. H. Flayyih, and H. R. Talab, "The effects of information technology adoption on the financial reporting: moderating role of audit risk," *International Journal of Economics and Finance Studies*, vol. 15, no. 1, pp. 47–63, 2023, doi: 10.34109/ijefs.202315104.
- [17] S. A. Alwan *et al.*, "The psychological effects of perfectionism on sport, economic and engineering students," *Revista Iberoamericana de Psicología Del Ejercicio Y El Deporte*, vol. 18, no. 3, pp. 330–333, 2023.
- [18] M. D. Salman *et al.*, "The impact of engineering anxiety on students: a comprehensive study in the fields of sport, economics, and teaching methods," *revista iberoamericana de psicología del ejercicio y el deporte*, vol. 18, no. 3, pp. 326–329, 2023.
- [19] S. H. H. Al-Taee and H. H. Flayyih, "Impact of the electronic internal auditing based on it governance to reduce auditing risk," *Corporate Governance and Organizational Behavior Review*, vol. 7, no. 1, pp. 94–100, 2023, doi: 10.22495/cgobrv7i1p9.
- [20] M. A. Ali *et al.*, "A Multidimensional View of Intellectual Capital and Dynamic Innovative Performance," *Journal of Risk and Financial Management*, vol. 16, no. 3, 2023, doi: 10.3390/jrfm16030139.
- [21] M. H. Rashem and Y. A. Abdullah, "Factors influence the growth and penetration of microfinance institutions: A case of Egypt," *Academy of Accounting and Financial Studies Journal*, vol. 22, no. Specialiss, 2018.
- [22] A. S. H. Al-Janabi, H. A. Mhaibes, and S. A. Hussein, "The role of learning organizations in crisis management strategy: A case study," *Corporate & Business Strategy Review*, vol. 3, no. 1, pp. 8–21, 2022.
- [23] A. S. H. Al-Janabi, H. A. Mhaibes, and S. A. Hussein, "The role of learning organizations in crisis management strategy: A case study," *Corporate & Business Strategy Review*, vol. 3, no. 1, pp. 8–21, 2022, doi: <https://doi.org/10.22495/cbsrv4i1art1>.
- [24] A. Jaber, T. Albderi, L. Ben Said, and D. Al-Shammary, "Visual Encryption based on Random Key Image Generation for Securing Image Communication." [Online]. Available: <http://sipi.usc.edu/database>
- [25] G. Richardson, "The relationship between culture and tax evasion across countries: Additional evidence and extensions," *Journal of International Accounting, Auditing and Taxation*, vol. 17, no. 2, pp. 67–78, 2008, doi: 10.1016/j.intaccaudtax.2008.07.002.
- [26] E. Kirchler, E. Hoelzl, and I. Wahl, "Enforced versus voluntary tax compliance: The 'slippery slope' framework," *J Econ Psychol*, vol. 29, no. 2, pp. 210–225, Apr. 2008, doi: 10.1016/j.joep.2007.05.004.
- [27] A. J. T. Albderi, L. B. Said, and D. Al-Shammary, "Literature Review for Health Secure Image Steganography and Visual Encryption," in *AICCIT 2023 - Al-Sadiq International Conference on*

- Communication and Information Technology*, 2023, pp. 218–223. doi: 10.1109/AICIT57614.2023.10217847.
- [28] I. Ajzen, “Attitudes, traits, and actions: Dispositional prediction of behavior in personality and social psychology,” in *Advances in experimental social psychology*, vol. 20, Elsevier, 1987, pp. 1–63.
- [29] D. D. Bobek and R. C. Hatfield, “An Investigation of the Theory of Planned Behavior and the Role of Moral Obligation in Tax Compliance,” *Behavioral Research in Accounting*, vol. 15, no. 1, pp. 13–38, Jan. 2003, doi: 10.2308/bria.2003.15.1.13.
- [30] I. Ajzen, “The theory of planned behavior,” *Organ Behav Hum Decis Process*, vol. 50, no. 2, pp. 179–211, 1991.
- [31] H. H. Flayyih, “The role of open budget in achieving of the transparency and responsibility and reflect it on the administrative and financial corruption. journal of Economics And Administrative Sciences, 22 (90).” 2016. [Online]. Available: <https://www.iasj.net/iasj/article/111457>
- [32] S. I. Hasan, H. S. Saeed, T. K. Al-Abedi, and H. H. Flayyih, “The role of target cost management approach in reducing costs for the achievement of competitive advantage as a mediator: an applied study of the iraqi electrical industry,” *International Journal of Economics and Finance Studies*, vol. 15, no. 2, pp. 214–230, 2023, doi: 10.34109/ijefs.202315211.
- [33] S. I. Hasan, H. S. Saeed, T. K. Al-Abedi, and H. H. Flayyih, “The role of target cost management approach in reducing costs for the achievement of competitive advantage as a mediator: an applied study of the iraqi electrical industry,” *International Journal of Economics and Finance Studies*, vol. 15, no. 2, pp. 214–230, 2023, doi: 10.34109/ijefs.202315211.
- [34] H. H. Flayyih and W. Khiari, “Empirically Measuring the Impact of Corporate Social Responsibility on Earnings Management in Listed Banks of the Iraqi Stock Exchange: The Mediating Role of Corporate Governance,” *Industrial Engineering and Management Systems*, vol. 22, no. 3, pp. 321–333, 2023, doi: 10.7232/iems.2023.22.3.321.
- [35] A. Guerra and B. Harrington, “Attitude–behavior consistency in tax compliance: A cross-national comparison,” *J Econ Behav Organ*, vol. 156, pp. 184–205, 2018.
- [36] H. H. Flayyih and W. Khiari, “An empirical study to detect agency problems in listed corporations: the emerging market study,” *Journal of Governance and Regulation*, vol. 12, no. 1 Special Issue, pp. 208–217, 2023, doi: 10.22495/jgrv12i1siart1.
- [37] H. R. Talab and H. H. Flayyih, “An empirical study to measure the impact of information technology governance under the control objectives for information and related technologies on financial performance | um estudo empírico para medir o impacto da governança de tecnologia da informação,” *International Journal of Professional Business Review*, vol. 8, no. 4, 2023, doi: 10.26668/businessreview/2023.v8i4.1382.
- [38] B. G. Adeyeye, O. J. Otusanya, and S. S. A. Arowomole, “Honesty, tax fairness, government’s responsiveness and voluntary tax compliance in Nigeria,” *International Journal of Economics and Accounting*, vol. 7, no. 4, pp. 326–344, 2016.
- [39] J. L. F. Wilson and S. Sheffrin, “Understanding surveys of taxpayer honesty,” *FinanzArchiv/Public Finance Analysis*, pp. 256–274, 2005.
- [40] C. D. Bailey and J. M. Plečnik, “Honesty in Personal Tax Reporting: Ethical Prompts, Individual Factors, and Tax Reform,” *Journal of Forensic Accounting Research*, vol. 5, no. 1, pp. 352–386, 2020.
- [41] A. F. Putra and A. H. Osman, “Tax compliance of MSME’s taxpayer: Implementation of theory of planned behavior,” *Journal of Contemporary Accounting*, vol. 1, no. 1, pp. 1–10, May 2019, doi: 10.20885/jca.vol1.iss1.art1.
- [42] C. W. Chan Coleen S Troutman David O, C. W. Chan, and S. Troutman, “An Expanded Model of Taxpayer Compliance: Empirical Evidence from the United States and Hong Kong.” 2000.
- [43] J. Alm, R. Bahl, and M. N. Murray, “Tax Structure and Tax Compliance,” *Rev Econ Stat*, vol. 72, no. 4, p. 603, Nov. 1990, doi: 10.2307/2109600.
- [44] P. Doerrenberg, “Does the use of tax revenue matter for tax compliance behavior?,” *Econ Lett*, vol. 128, pp. 30–34, Mar. 2015, doi: 10.1016/j.econlet.2015.01.005.
- [45] K. Gangl, B. Torgler, and E. Kirchler, “Patriotism’s Impact on Cooperation with the State: An Experimental Study on Tax Compliance,” *Polit Psychol*, vol. 37, no. 6, pp. 867–881, Dec. 2016, doi: 10.1111/pops.12294.
- [46] J. Kahne and E. Middaugh, “Is patriotism good for democracy? A study of high school seniors’ patriotic commitments,” *Phi Delta Kappan*, vol. 87, no. 8. Phi Delta Kappa Inc., pp. 600–607, 2006. doi: 10.1177/003172170608700815.

- [47] K. A. ; Konrad, Qari, and Salmai, "The last refuge of a scoundrel? Patriotism and tax compliance." [Online]. Available: <http://hdl.handle.net/10419/51148>
- [48] J. G. Cullis and A. Lewis, "Why people pay taxes" From a conventional economic model to a model of social convention," 1997.
- [49] I. Ajzen and M. Fishbein, "Attitudes and the Attitude-Behavior Relation: Reasoned and Automatic Processes," *Eur Rev Soc Psychol*, vol. 11, no. 1, pp. 1–33, Jan. 2000, doi: 10.1080/14792779943000116.