Identifying the Effective Components in Validating the Declared Taxable Income of Companies Using the Structural Equation Model

Ali Asghar Mottaghi *, Nabi Najafi, Ahmad Mohammadi
Department of Accounting, Tabriz Branch, Islamic Azad University, Tabriz, Iran

Abstract

Objective: In recent years, the country's tax affairs organization has followed the approach of trusting taxpayers and the principle of the correctness of information expressed by taxpayers and has reviewed and compiled its systems and directives in this regard. Thus This paper aims to provide a comprehensive model for validating companies' taxable income in the light of trust theory, information validity theory, the law of truthfulness, and theories of truth (correspondence, coherence, and pragmatism).

Methodology: in this paper, by conducting semi-structured interviews with experts in 2021 and 2022, the components and indicators governing the declared taxable income of the companies were extracted, and then the proposed research model was compiled using the structural equation method.

Results: The factors affecting the credibility of taxable income declared by companies, in order of importance, are auditing factors, technical and systemic factors, environmental factors, company-specific factors, and financial and accounting factors that the tax affairs organization should use to assess the credibility of income. Companies subject to tax should pay attention to these factors appropriately.

Innovation: The components identified in this research can help determine the validity of declared taxable income and the credit risk of companies. Before the tax audit process implementation, it provides a valid basis for selecting a taxpayer for audit. Also, the research findings lead to the development of theoretical support bases in accounting and tax research.

Keywords: declared taxable income, information credibility, trust theory, tax audit, comprehensive tax plan.

1. Introduction

Taxation has always been an essential and fundamental issue in the economy because it is one of the primary operations of all governments and a prerequisite for everything that governments undertake (Simon and Lukason, 2021; Kiser and Karceski, 2017). Governments provide essential security services to their people by collecting taxes from people and providing resources to rich and poor people. Tax revenues are the primary source of government budget financing for investment in public infrastructure (Barbu et al., 2022). In underdeveloped countries, tax evasion is a big challenge to collecting tax revenues (Al-Rahamneh and Bidin, 2022; Umar et al., 2019). Fighting tax evasion is one of the goals of all tax systems in the world, for which there are two basic strategies. One is creating and developing sustainable tax self-declaration systems, and the second is using risk-based tax audits (Dehghani, 2018). The self-declaration system allows taxpayers to determine and pay the amount of tax payable each year by the applicable tax laws and provides a lot of freedom and responsibility to fulfill taxpayers' tax obligations (Masrullah et al., 2021). Since this system requires the voluntary compliance of taxpayers, it creates great opportunities for them. Tax collection with the self-declaration system will be done well if the taxpayers have high tax knowledge and discipline, and the features of the self-declaration system (ensuring the simplicity of the law, accessible, fair, and just implementation of the tax) well done by the taxpayers (Wahyudin et al., 2022; Batrancea et al., 2019 and Gechert and Heimberger, 2022). In other words, the success of the self-declaration tax system is voluntary compliance with tax laws (Pui Yee et al., 2017).

Among the characteristics of the tax system of developing countries are the non-compliance of tax structures with international standards, lack of tax policy management, low tax compliance, and inappropriate capacities. The most critical component in the improper management of the tax system is an ineffective audit program, which reduces the ability of tax audits, and reduces the possibility of identifying and prosecuting tax criminals. In general, tax audit performance in developing and transition countries is feeble (Gupta and Nagadevara, 2007; Belay, 2017).

According to the above, the self-declaration system is generally based on the fact that the taxpayer is more aware of his financial and income situation than anyone else. Therefore, if the tax system reaches a position where the taxpayers will make the correct tax diagnosis, it will improve tax collection from various aspects. In this system, the role of tax officials will be to control and check whether the taxpayer has declared his income correctly and whether the applied exemptions and deductions have been legal. If the work is not done correctly, what is the amount of tax that can be collected? But the important thing is that control and review considering cost-benefit compliance are not possible for all taxpayers, so it is better to do it in a sample form (Barzegari Khangah and Feizpour, 2012). On the other hand, since choosing a taxpayer based on risk criteria and planning for tax audit requires identifying the level of risk and credit of each taxpayer, and identifying the risk and credit of each taxpayer also requires identifying components that can be based on these components, before the implementation of the tax audit process, it is necessary to select a taxpayer for a tax audit. Therefore, the present research, based on the insights obtained from the experts and its comparison and validation with existing theories, seeks to find a suitable answer to the question of what are the influential factors in determining the credibility of expressed taxable income of companies and how is the comprehensive model of assessing the credit of taxable income of companies? For this purpose, the theoretical foundations and experimental background, research methodology, findings, and results from the structural equations of the discussion and the proposed model are presented in the following.

1. Theoretical principles

1.1. Expressed taxable income credit

The importance and special position of the tax system in the economy of any country are not hidden from any of the specialists and experts in the economic field. Audit strategy is a vital tool in empowerment management through the Tax Affairs Organization. The tax affairs organization cannot audit all taxpayers, and the continuous investigation of low-risk and empowering taxpayers is a waste of resources by the organization (World Bank, 2011). In other words, it can be said that the cost of the lost opportunity for such

investigations is very high, so resources should be spent on taxpayers who have the potential to generate more income and profit. The tax affairs organization should manage tax compliance by taxpayers through its own methods and techniques in order to identify and prevent criminal behavior and help taxpayers in tax compliance and payment of their tax obligations by providing appropriate services and training. Such a written system is based on self-declaration and voluntary empowerment by taxpayers, and the risk assessment function is separated from the audit execution function (Khwaja et al., 2011). The problems in Iran's tax system caused new arrangements to be made regarding the tax system.

A coherent tax information system that is optimally designed and planned is an effective factor in improving tax detection and collection methods, reducing tax evasion, reducing administrative corruption, eliminating discrimination, and increasing efficiency, as well as a factor for more accurate budget regulation. Therefore, most countries in the world have tried to achieve such a tax information system, and many advanced countries have also achieved it. In our country, the lack of a coherent, coordinated, and mechanized tax information system has caused a gap between the potential tax capacity of the economy and its actual capacity. The deprivation of tax revenues has increased while the collection of the same amount of tax has also brought enormous costs in all dimensions, including material, social and economic costs for the country (Adam et al., 2015). On the other hand, it is impossible to intercept information related to economic activities and exchanges in today's world by relying on traditional methods. Also, the tax system in the absence of a unified view of taxpayers, the weakness of tax information, and the lack of information elites on taxpayers were not able to properly perform the legal duties assigned to them and also provide appropriate services to taxpayers, which in turn led to issues such as dissatisfaction of taxpayers, non-compliance of taxpayers, tax evasion and reduction of tax revenues (Bryce et al., 2016). Hence, the deficiencies and shortcomings in the information, processes, implementation, and existing laws of the tax system have necessitated the importance of implementing a comprehensive tax plan. In recent years, in the country's tax affairs organization, the risk-based audit selection project has been seen as a subset of the integrated tax system in the comprehensive tax plan. Still, it has not yet been fully operationalized. If this project is implemented, the auditors

of the Tax Affairs Organization will not be involved in processing the tax return, and this work will be done automatically.

1.2. Contributing factors to the expressed taxable income credit

The promulgation of the new tax law was approved in July 2014, except for some parts of it, including the implementation of Article 97, which came into effect at the beginning of 2015, the removal of Articles 152 and 153 of the Direct Taxes Law approved in February 2000, and to put it better, the removal of tax assessment using the ex officio method and the replacement of the procedure based on reasons and objective evidence, which should be made efficient by adopting appropriate mechanisms, will help tax justice. Based on this, by removing the ex officio method from the tax system, proceedings will be more disciplined and more transparent, and cooperation and interaction between trade unions, economic enterprises, and in other words, taxpayers, with the Tax Administration will increase. By trusting the people and the criterion of taxpayers' information, we can hope that the tax collection time will be reduced. In such conditions, the interaction between taxpayers and tax auditors increases, the satisfaction of taxpayers increases, and the tax system becomes closer to realizing tax justice (Barzegari et al., 2019). Despite the expectation for the cooperation of taxpayers and their financial information holders, in many cases, the information available to prepare financial statements containing taxpayers' income and expenses is still incomplete. Some methods, including a comprehensive tax plan that can complete and summarize the available information acceptably, should be used. In this regard, Dastgir et al. (2014) presented a selection model for tax audits based on the risk of legal entities in Iran. In this study, the factors affecting the taxpayer risk are the quality of corporate governance (the variables of CEO duality, the percentage of the number of non-executive directors, the percentage of shares in the hands of managers, the power of shareholders, the percentage of institutional shareholders, the presentation of financial and tax audit reports), the characteristics of legal taxpayers (Variables of type of ownership, type of company, type of activity, concentration, the life of activity, size, membership in the stock exchange), and tax history of the company were identified. Also, Hirani et al. (2019) identified the factors affecting the risk of a tax audit with a combined exploratory method and showed that exchange with fake and uncredited companies, the use of partners' current accounts in carrying out

expenses, and a high ratio of end-of-period inventory to sales are among the most critical indicators of tax audit risk. Inasius (2019) proved that the possibility of an audit, tax knowledge, and understanding of justice and fairness significantly affect tax compliance and the provision of reliable and correct information by taxpayers. Abdulhamid et al. (2019) consider tax knowledge, the complexity of tax rules and regulations, the difficulty of understanding them, and the high current tax rate to be the factors affecting the tax support of businesses. Green et al. (2022) investigate whether public financial statement information is incrementally useful in forecasting confidential taxable income and suggest that macroeconomic forecasts of taxable income may be further improved by the aggregation of firm-level forecasts that are generated using financial statement information.

1.3. Assessing the validity of declared taxable income

Considering the need to trust the information expressed by taxpayers in the comprehensive tax plan, which is based on the information expressed by taxpayers, the discussion of the validity of this information and the creation of a suitable mechanism to measure this in order to ensure reasonable assurance by the relevant institutions is considered one of the most vital issues. In line with the theoretical support of measuring the credibility of taxpayers' (voluntarily) expressed information, the following scientific theories can provide a suitable platform to support the model of assessing the validity of taxable income expressed by taxpayers.

A. trust theory

James Coleman, one of the theorists in the field of trust, believes that based on the theory of rational choice, actors are purposeful agents who take actions that are more likely to succeed and thus increase their interests. But the point is that making many exchanges requires trust between the parties. According to Coleman, information plays an important and decisive role in trust. Based on this, the existence of information can strengthen the trust between the parties (Moradi and Bayat, 2017; Coleman, 1994). It seems that in our country's tax system, the culture of voluntary tax payment based on self-declaration is low, and according to the people, the tax system is not efficient and effective. There is no mutual trust between the tax system and the taxpayers (Qaranjik et al.,

2021). Therefore, it is necessary to determine the valid and acceptable components to establish mutual trust between the tax system and taxpayers in light of the theory of trust. In this regard, De Neve et al. (2021) concluded that simplifying communication between taxpayers and the tax administration increases tax compliance, and deterrence messages will positively affect tax compliance. On the other hand, tax ethics and spirit do not increase or improve tax compliance. Also, Da Silva et al. (2019) investigated the two policies of compulsory and voluntary tax in Brazil's sliding slope framework. Their research showed that trust-based interaction between taxpayers and tax auditors would lead to voluntary tax payments. This is because the policy based on pressure and force will not lead to the payment of compulsory taxes, and the taxpayers will not be willing to pay taxes.

B. validity theory

Undoubtedly, the move towards trusting the taxpayers and the orientation of the tax system based on the self-declaration of the taxpayers will require the existence of appropriate confidence about the validity of the declared information. The validity of information is a prerequisite for moving towards the realization of the country's comprehensive tax plan goals. The theory of the validity of information about the statement's truth is based on its validity. It is one of the theories that have been presented about the truth and the nature of the statement of words (Liu, 2010 and the dictionary of principles of jurisprudence). In other words, it is assumed that the more the provided information represents the truth of the matter, the more reliable it is. This article has been consolidated in the form of the truth expression law. Regarding the truth, many different theories have been expressed; The most important of them are the theories of correspondence, coherence and pragmatism, which are explained in the following section (Moloudi and Hoyda, 2013; Johnson, 1992).

C. truth theories

Correspondence theory: Following a realist point of view, the truth is the agreement and correspondence of the statement with reality. This theory can be used as a definition of truth due to its defensible logical foundations and wide consensus in its acceptance.

Coherence theory: due to turning away from the tradition of realism regarding the truth and the difficulties judges face in accessing facts, it can be a standard for discovering the truth in some judicial issues.

Pragmatic theory: interpret the truth in the light of the concepts of benefit and expediency and consider something worthy of this title if it is useful in practice. With the clarification of the meaning of truth, the judge should seek to verify this concept; various conditions regarding truth, such as judicial and relative truth, should not cause transformation and change in the concept of truth.

Nyarkpoh (2018) also showed in a study that trust in the government positively and significantly affects the probability of tax compliance. In addition, other variables such as a high level of education, government employment, low corruption, and a sense of security affect the probability of tax compliance. Keno (2020) also examined the factors affecting taxpayers' understanding of tax evasion. It showed that tax evasion is caused by a lack of knowledge about taxes, an understanding of tax evasion as a culture, the tax audit process, and the degree of realization, understanding tax evasion as a minor crime and issues related to tax fairness and justice. Bani-Khalid et al. (2022) identified taxpayers' attitudes, subjective criteria, perceptual behavior, and patriotism as determinants of tax compliance. Perera et al. (2020) investigated confirmation bias in accounting judgments. Their research showed that accountants act biased toward recognition and measurement principles. This bias can be reduced by informing accountants about the requirements of correct judgment. In addition, Tilahun (2019) considers taxpayers to be under the influence of various factors such as punishment, justice in the tax system, tax rate, the possibility of discovery and audit, etc. and suggests that the tax-collecting institution should establish tax justice (not with the stick policy), maintain the appropriate level of punishment, and consider concessions for responsible citizens. Gechert and Heimberger (202٢) show evidence for publication selectivity in favor of reporting the growth-enhancing effects of corporate tax cuts. Several factors influence reported estimates, including researcher choices concerning the measurement of growth and corporate taxes and controlling for other budgetary components. Wahyudin et al. (2022) show that The results of the study indicate that the tax audit is quite effective as an act of monitoring the self-assessment system.

The above theoretical and empirical bases show that, so far, no research has been done to comprehensively identify the effective components in validating companies' taxable income. Based on this, the current research aims to identify and explain these components through interviews until a comprehensive model for assessing the validity of companies' taxable income is presented in the current situation, so the following research questions are based on theoretical foundations: literature review in the field. The related issues and research objectives have been tested.

1- What effective factors determine companies' taxable income validity?

2- What is the prioritization and weight of each effective factor in determining the validity of companies' taxable income?

3- How is the comprehensive model for determining companies' validity of taxable income explained?

2. Research methodology

The research method of the present study is an exploratory combination based on the collection, analysis, and combination of two types of qualitative and quantitative data, which are divided into three categories: interwoven, descriptive, and exploratory (Creswell and Plano-Clark, 2007; Plano-Clark. et al., 2008). In the qualitative part, the statistical population of the research consists of auditors of the Tax Affairs Organization with at least 10 years of auditing experience in companies. Using the qualitative research method of thematic analysis, 15 semi-structured interviews were conducted to identify primary indicators. The time domain of the research is the years 2021 and 2022, and the geographical domain is the Tax Affairs Organization of the country.

In the quantitative part, the research questions are compiled based on the concepts obtained from the qualitative part and the review of the research basics and background. To test the questions, a questionnaire based on the concepts of the qualitative part of design research and its information is completed by different groups. The questionnaire items were designed based on a 9-point Likert spectrum, from very little (1) to very much (9). The impact

of each implicit and explicit component of the conceptual model was evaluated using the structural equation modelling approach. Also, all the mentioned processes have been done in SPSS55 and Smart PLS3 software. In this section, the statistical population consists of 310 academic staff members of the accounting department, financial managers, independent auditors, and tax auditors, and by using the Cochran formula, 171 questionnaires were distributed and collected among the interviewed panel members. Among the collected questionnaires, 159 usable items were evaluated, and 15 of the interviewees of the first part were also among the statistical population of the second part. Table number (1) is the demographic information of the research participants.

Table 1. Demographic characteristics

Description		Frequency	Percentage
Gender	Man	134	84
	Female	25	16
Age	Less than 30 years	21	13
	Between 31 and 40 years	69	44
	Between 41 years and 50 years	64	40
	More than 50 years	5	3
Records	Less than 10 years	11	7
	Between 11 and 20 years	98	62
	Between 20 and 30 years	48	30
	More than 30 years	2	1
Education	bachelor's degree	27	17
	Master's degree	79	50
	PhD.	53	33
Major	Accounting, auditing, finance	135	85
	Economy	16	10
	other	8	5

In Table (2), descriptive statistics indices (central and dispersion indices) are presented to summarize the data in order to get a general picture of the sample under investigation and the relationships between the research variables.

Table ۲. Descriptive statistics of research variables (source, research findings)

Research variable	Mean	Minimum	Maximum	Standard deviation
Income factors	50.83	27	69	7.324
Cost factors	49.17	27	62	7.845
Balance sheet factors	67.53	40	94	9.409
Other financial and accounting factors	42.85	26	57	5.049
Auditor type	16.73	7	27	3.567
Audit fees	9.45	3	18	2.909
Providing an audit report	18.19	9	26	3.938
Auditor's opinion type	17.56	8	25	3.37
Economical	19.79	7	31	4.994
Political	15.62	8	24	3.224
Legal	52.16	25	70	6.418
Cultural	23.23	5	34	4.425
Management features	32.24	16	51	5.217
Performance and operational characteristics	45.4	28	71	6.499
Comparing the company's information with the systems available to the organization	27.96	7	36	3.775
The existence of a standard two-way accounting system	19.69	10	27	3.724
Number of specialist staff	18.77	6	25	3.834
Number and complexity of products	22.03	8	32	5.325

3. Research findings

3.1. Testing the first question

The first question of the research states that what are the effective components in determining the validity of companies' taxable income? In other words, can the sub-themes extracted from the qualitative part of the research be the approved factors for the main themes? To answer this question, the confirmatory factor analysis method has been used. For this purpose, we first check whether the questionnaire items can explain the sub-themes of the

research. After confirming this step, we will examine the above question. It is necessary to explain that this method was done using Smart PLS software version 3. The confirmatory factor analysis model results are presented in table (3). Criterion values are usually between 0.5 and 0.7 for factor loads, and the lowest declared limit is 0.4. This means that the questions with the absolute value of factor loadings less than 0.4 are not enough to remain in the model and should be removed and the model run again.

According to the results, the absolute value of the standardized factor loading for all the items except item Q23 (0.101) is greater than 0.5; Therefore, this non-standard item was removed, and the confirmatory factor analysis model was implemented again. The results of the second implementation of the model indicate that the absolute value of the standardized factor loading for all items is greater than 0.5; Therefore, it can be concluded that the remaining items of the questionnaire explain the sub-themes of the research well.

Table 3. Results of standardized factor loadings

Code	Concept (item)	Standard factor load
Q1	The existence of exports and their ratio to the company's domestic sales	۰/۷۷۲
Q2	The high quality of expressed interest	۰/۵۳۲
Q3	Major changes in income compared to previous years	۰/۶۷۶
Q4	Proportionality of gross profit margin and net profit compared to the industry average	۰/۷۸۹
Q5	Items that do not affect taxable income, such as profit from the sale of investments, dividends, etc.	۰/۷۷۳
Q6	The existence of incidental income	۰/۵۱۸
Q7	Existence of income with withholding tax	۰/۶۷۵
Q8	Absence of declared losses for at least two consecutive years	۰/۷۸۵
Q9	High rial ratio of manufactured goods inventory to sales for at least two consecutive years	۰/۸۰۰
Q10	The amount of manufactured goods and its relationship with the type of company's activity in terms of expiration date and storage conditions	۰/۸۲۳
Q11	The presence of a product in the process of manufacturing and its relationship with the subject of the company's activity to an appropriate extent	۰/۷۸۷

Q12	There is no major change in auxiliary materials and packaging, despite its low amount and ratio to the volume and quantity of manufactured goods.	۰/۸۰۰
Q13	Comparing the components of the total cost (materials, wages and overhead) to sales	۰/۸۱۶
Q14	No major change in the ratio of waste to production	۰/۵۰۴
Q15	The optimal percentage of the cost of salaries and wages and its ratio with sales in production, commerce and...	۰/۵۴۰
Q16	The ratio of some imported materials to the total raw materials used in production	۰/۵۵۲
Q17	The existence of financial facilities and their relationship with the financial cost and the company's income	۰/۵۰۱
Q18	Optimum return on assets	۰/۵۵۲
Q19	Absence of significant fluctuation in financial statement items in at least 2 consecutive years	۰/۶۹۰
Q20	The high amount of working capital compared to the industry average	۰/۶۳۵
Q21	The low turnover period of receivables and its ratio to the company's sales	۰/۵۰۴
Q22	No major changes in accounts receivable and their ratio to sales	۰/۵۵۴
Q23	The ratio of inventory to the volume and amount of sales	Omitted
Q24	Increase in fixed assets and its effect on the company's sales	۰/۷۲۵
Q25	The amount of orders and prepayments and their relationship with the purchase amount	۰/۶۹۶
Q26	The amount of the fee and reserve of the graduate and its relationship with the number of employees	-۰/۵۶۵
Q27	The amount of advances and its relationship with sales and facilities received	-۰/۵۵۰
Q28	The low share of partners' current accounts compared to sales or purchases	۰/۵۳۹
Q29	Absence of sales to fake and uncredited companies	-۰/۵۴۹
Q30	The relatively low number and variety of customers	۰/۶۴۰
Q31	Having legal offices and writing them	-۰/۵۸۹
Q32	The existence of annual adjustments, especially if the income increaser is taxable	۰/۶۹۷

Q33	Bank information of taxpayers (circulation of bank accounts and its connection with company sales)	۰/۷۴۲
Q34	Buying or selling in the commodity exchange	-۰/۶۱۵
Q35	The number of employees and their ratio to the subject of the company's activity	۰/۷۱۸
Q36	Being a government auditor	۰/۸۳۰
Q37	The size of the audit institute	۰/۵۷۷
Q38	The rank of the auditor's institution (A, B, C)	۰/۸۸۹
Q39	Higher amount of audit fees	۰/۵۷۱
Q40	Existence of non-audit service fees	۰/۹۳۸
Q41	Mandatory submission of audit report	0.737
Q42	Submitting the audit report along with the declaration	0.797
Q43	Quality of financial audit performed by independent auditors	0.642
Q44	Conditional / rejection of the audit report	0.513
Q45	A provision about the continuity of the company's activity in the audit report	0.853
Q46	Existence of ambiguity about the legal claims of the company in the audit report	0.597
Q47	Increase in GDP	0.615
Q48	Balanced inflation rate	0.716
Q49	Appropriate employment rate	0.663
Q50	Appropriate bank interest rate	0.543
Q51	Being a member of the government board	0.607
Q52	The presence of institutional shareholders in the composition of shareholders	0.546
Q53	The presence of major shareholders in the composition of shareholders	0.672
Q54	Existence of tax exemptions and incentives and their relationship with the subject of the company's activity	0.594
Q55	Legal permits such as exploitation license, mining license, nominal and actual capacity check	0.629
Q56	Matching the declaration information with the information registered in customs, banks, insurance companies, etc.	0.513
Q57	Knowledge of tax and accounting laws and regulations (having a financial and tax advisor)	0.564
Q58	Company's tax history - Article 189 BC (three consecutive years...)	0.654
Q59	Being subject to value-added tax	0.543
Q60	Offering seasonal deals	0.565

Q61	Submission of tax returns on legal dates	0.578
Q62	The absence of the company in the list of polluting companies (including pollution charges)	0.551
Q63	The attitude of the manager or the financial officers of the company about the tax system	0.661
Q64	The attitude of the manager or the financial officers of the company regarding taxes and the necessity of paying them	0.801
Q65	The state of the country's tax culture and willingness to pay taxes among taxpayers	0.602
Q66	Company type (public shares, private shares, partnership, etc.)	0.573
Q67	The number of board members	0.794
Q68	The existence of a female member in the composition of the board of directors	0.867
Q69	Having a foreign shareholder	0.602
Q70	The type of ownership of the company (government or joint stock)	0.794
Q71	The percentage of non-executive board members	0.793
Q72	Having multiple branches or affiliated companies (domestic and foreign)	0.574
Q73	Nature of activity (production, service, trade, contracting)	0.765
Q74	The company's activity locations (multiple or far from the office, located in decentralized spaces)	0.514
Q75	Firm age (the criterion is the date of obtaining the operating license)	0.581
Q76	Taxpayer size (small, medium, and large)	0.701
Q77	The amount of registered capital compared to the volume of its operations	0.600
Q78	Membership in the stock exchange	0.568
Q79	Type of industry (non-sanctioned)	0.568
Q80	The possibility of validating the data provided with information systems within the organization	0.761
Q81	The possibility of matching the information of sellers and buyers	0.637
Q82	The possibility of matching the declaration information with the information registered in customs, banks, insurance companies, etc.	0.597
Q83	Non-conformity of Riyal salary list of the tax system and social security organization	0.812

Q84	The existence of an integrated system in the company (financial/non-financial)	0.705
Q85	Up-to-date system (financial/non-financial)	0.785
Q86	Existence of software approved by the Tax Affairs Organization	0.644
Q87	The existence of employees with degrees related to their duties	0.677
Q88	Having employees with a long experience	0.710
Q89	The existence of employees with technical training related to the duties	0.758
Q90	Production of branded products	0.501
Q91	Production of exclusive products	0.766
Q92	Product innovation	0.757
Q93	There is a variety in the number of products	0.852

Source: research findings

Theoretical summarization and development of the findings of the first question

In coding the previous sections, categories were systematically improved, developed, and linked with subcategories; However, these categories should be integrated to form a larger theoretical framework. For this purpose, the comprehensive model of effective components in determining the validity of companies' taxable income is presented in Figure (1). In the previous section, it was also stated that all identified factor loadings are significant at the 95% confidence level and explain the sub-themes of the research appropriately. Besides, the coefficients of factor loadings related to the factors "income", "cost", "balance sheet" and "other financial and accounting factors" which are assigned to "financial and accounting" factors are respectively equal to 0.882, 0.908, 0.645 and 0.615, the coefficients of factor loadings related to audit factors including "auditor type", "audit fee", "audit report presentation" and "auditor opinion type" are equal to 0.651, 0.779, 0.817 and 0.972 respectively, factor loading coefficients related to including "economic factors", "political factors", "legal factors" and cultural and social factors" are respectively equal to 0.778, 0.615, 0.747 and 0.677, factor loading coefficients related to " Company-specific factors" including "management characteristics" and "performance and operational characteristics" equal to 0.826 and 0.804, respectively, and finally, factor loading coefficients related to "technical factors" including "Comparison of company information with the system"

"Existence of two-way standard accounting system", "Number of expert employees" and "Number and complexity of products" are equal to 0.968, 0.739, 0.790 and 0.793, respectively. Because all factors have a factor load of more than (0.5) with their related hidden variable; the above factors are approved for "assessing the credibility of taxable income of companies". Figure (1) shows the confirmatory factor analysis model.

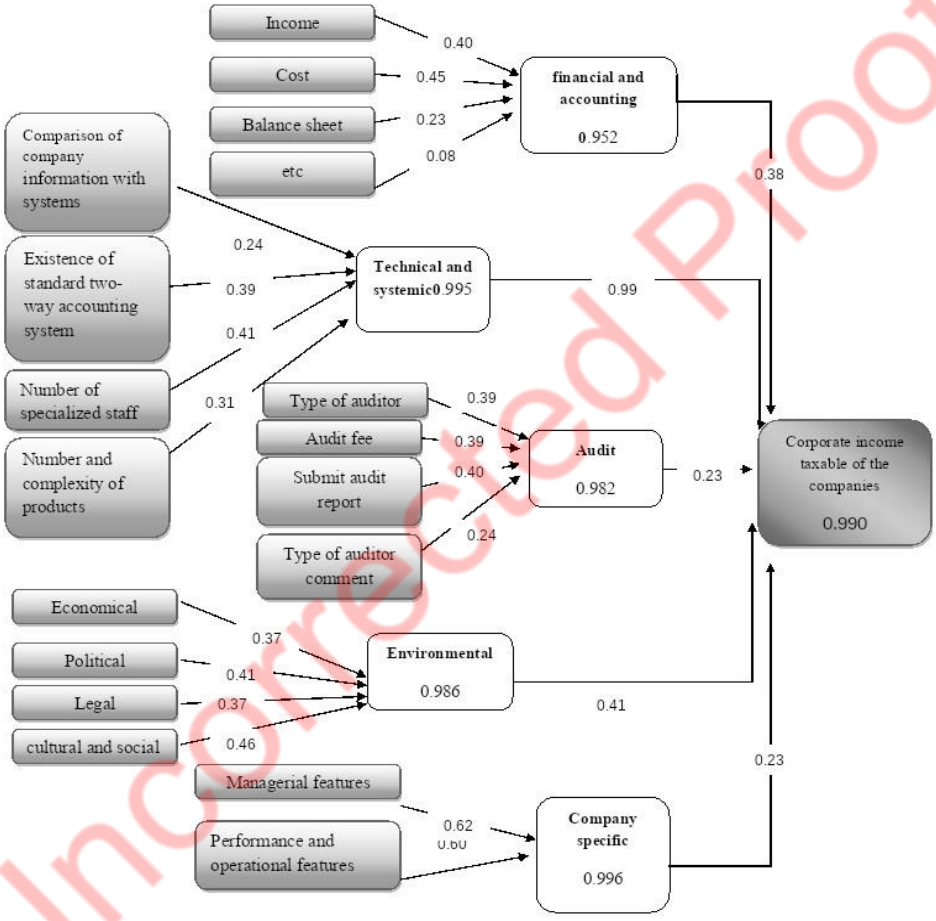

Figure1. Tested model of research based on path coefficients

3.2. Testing the second question

The second question of the research states that what is the prioritization and weight of each effective factor in determining the validity of the companies' taxable income? To answer this question, firstly, the main effective factors in measuring the validity of the companies' taxable income (main themes) and then the sub-factors effective in it (sub-themes) have been tested using the Friedman ranking test and the sameness of priority. The results of this test for the main factors are shown in table (4). Since the value of Sig is smaller than 0.01, with 99% confidence, the same priority of "the main effective factors in determining the validity of the declared taxable income of companies" is rejected.

Table 4. Friedman test results

Indicator	Value
Sample size	۱۱۵
Chi-square statistic	۴۵۱/۵۹
Degrees of freedom	۴
a probability value (Sig)	<۰/۰۱

Source: research findings

Theoretical summarization and development of the findings of the second question

In order to prioritize each of the effective components in measuring the credibility of the declared taxable income, the rank average is used. Table (5) shows the averages along with the order of priority of the main factors. It should be noted that in the ranking of these factors, the lowest rank is given to the highest score, and the highest rank is given to the lowest score; therefore, a smaller average rank indicates a better priority. As can be seen, in terms of being effective in determining the validity of taxable income of companies, audit, technical and systemic, environmental, company-specific and financial and accounting factors are the first to fifth priorities, respectively.

Table 5. The results of the rank average test, along with the order of priority

Main factors	Rank average	Priority order
Audit agents	1.03	۱
Technical and systemic factors	1.99	۲
Environmental factors	2.99	۳
Company-specific factors	4.03	۴
Financial and accounting factors	4.96	۵

Source: research findings

Friedman's test was used to test the equality of the priority of the sub-factors effective in determining the validity of the declared taxable income of the companies. Table (6) shows the results of the Friedman test, including the sample size, chi-square statistic, degree of freedom and probability value (Sig). Because the value of Sig is smaller than 0.01, With 99% certainty, the same priority of "sub-factors effective in determining the validity of the taxable income of companies" is rejected. For prioritizing these factors, the rank average was used.

Table 6. Friedman test results

Indicator	Value
Sample size	۱۱۵
Chi-square statistic	۴۹۲/۷۵
Degrees of freedom	۱۷
a probability value (Sig)	<۰.۰۱

Source: research findings

Also, the average test and the priority order of the sub-factors are stated in Table (7). In terms of the effectiveness of each of the effective factors in determining the validity of the taxable income of companies, the factors related to audit fees (5.25), economic (5.50), political (6.28), management factors (7.03), type of auditor (7.81), balance sheet factors (7.96), performance and operational characteristics (8.24), number and complexity of products (8.58), cultural and social factors (9.16), auditor's opinion type (9.43), presentation of

the audit report (10.52), other financial and accounting factors (10.66), other cost factors (10.91), the number of expert employees (11.51), other income factors (11.87), the existence of standard two-way accounting system (12.55), legal factors (12.94) and comparison of company information with systems (14.79) are in the first to eighteenth priorities, respectively.

Table 7. Rank average along with priority order of sub-factors

Sub-factors	Rank average	Priority order
Audit fees	۵/۲۵	۱
Economic factors	۵/۵۰	۲
Political factors	۶/۲۸	۳
Management characteristics	۷/۰۳	۴
Auditor type	۷/۸۱	۵
Balance sheet elements	۷/۹۶	۶
Performance and operational characteristics	۸/۲۴	۷
Number and complexity of products	۸/۵۸	۸
Cultural and social	۹/۱۶	۹
Auditor's opinion type	۹/۴۳	۱۰
Providing an audit report	۱۰/۵۲	۱۱
Other financial and accounting factors	۱۰/۶۶	۱۲
Other cost factors	۱۰/۹۱	۱۳
The number of specialist employees	۱۱/۵۱	۱۴
Other income factors	۱۱/۸۷	۱۵
The existence of a standard double-sided accounting system	۱۲/۵۵	۱۶
Legal factors	۱۲/۹۴	۱۷
Comparison of company information with systems	۱۴/۷۹	۱۸

Source: research findings

3.3. Testing the third question

The research's third question states, how is the comprehensive model in determining the validity of companies' taxable income explained? In order to answer this question and draw a comprehensive pattern in determining the validity of the declared taxable income of companies, a suitable pattern was drawn using the research literature in related fields and the results of interviews

with specialists. This model has been tested using real data collected from the statistical population of the research and using structural equation modeling software with partial least squares (Smart-PLS); the significance and effect coefficient of each of the relationships has been determined, and ineffective relationships have been reviewed and modified in several stages to calculate the final model of the research. Using the hypothetical model of the research, the communication path of the items to the sub-themes, then the communication path of the sub-themes to the main themes, and finally, the relationship between the main themes and the taxable income variable of the companies were drawn to show the means to determine the effect of each factor. Before doing this, the degree of collinearity of the model factors should be tested. For this purpose, the Variance Inflation Factor (VIF) test is used, which evaluates the intensity of multiple collinearities in ordinary least squares regression analysis. If the VIF test statistic was close to 1, it indicates the absence of collinearity. As an empirical rule, If the VIF value is greater than 5, the possibility of multiple collinearities is high. The results of this test are shown in table (8). According to the results of this table, the VIF value of none of the items is greater than 5. As a result, there is no multiple collinearity problem for testing the research model.

Modeling of structural equations deals with the model test in two stages, which include the measurement and structural model test. In PLS modeling, the measurement model is called the external model and the structural model is called the internal model. The measurement model examines the reliability and validity of the measurement tools and research structures and tests the structural model, hypotheses, and relationships of the hidden variables. To check the validity of structures, Frenell and Locker (1981) suggest three criteria that include: 1- the reliability of each item, 2- the composite reliability of each of the constructs, and 3- the average variance extracted (Average Variance Extracted).

Regarding the validity of each item, the absolute factor loading value of 0.4 and more in the confirmatory factor analysis is defined as a good construct. A common criterion for establishing convergent validity at the construct level is

average variance extracted (AVE). As seen in Table (8), the values of the model's hidden components' factor loadings are more than 0.4, which is statistically significant. On average, the construct explains more than half of the variance of the corresponding indicators. Also, the average extracted variance (AVE) of each component is more than 0.4; This result indicates that the fitted model has good convergent validity and confirms the confirmatory factor analysis.

Table 8. Results of factor analysis of questionnaire questions

Code	Concept (item)	Standard factor load	t statistic	VIF
Q1	The existence of exports and their ratio to the company's domestic sales	0.734	14.438	1.536
Q2	The high quality of expressed interest	0.551	3.360	1.822
Q3	Major changes in income compared to previous years	0.703	11.675	3.103
Q4	Proportionality of gross profit margin and net profit compared to the industry average	0.793	18.213	1.632
Q5	Items that do not affect taxable income, such as profit from the sale of investments, dividends, etc.	0.734	14.540	1.568
Q6	The existence of incidental income	0.538	3.238	1.326
Q7	Existence of income with withholding tax	0.702	12.046	3.722
Q8	Absence of declared losses for at least two consecutive years	0.791	18.063	2.357
Q9	High rial ratio of manufactured goods inventory to sales for at least two consecutive years	0.800	20.149	3.306
Q10	The amount of manufactured goods and its relationship with the type of company's activity in terms of expiration date and storage conditions	0.829	21.106	3.661
Q11	The presence of a product in the process of manufacturing and its relationship with the subject of the	0.771	19.791	2.019

	company's activity to an appropriate extent			
Q12	There is no major change in auxiliary materials and packaging, despite their low amount and ratio to the volume and quantity of manufactured goods.	0.801	19.613	2.344
Q13	Comparing the components of the total cost (materials, wages and overhead) to sales	0.821	20.896	2.971
Q14	No major change in the ratio of waste to production	0.520	5.845	1.282
Q15	The optimal percentage of the cost of salaries and wages and its ratio with sales in production, commerce and...	0.532	6.799	1.421
Q16	The ratio of some imported materials to the total raw materials used in production	0.550	4.650	1.172
Q17	The existence of financial facilities and their relationship with the financial cost and the company's income	0.507	3.461	1.200
Q18	Optimum return on assets	0.577	7.923	1.138
Q19	Absence of significant fluctuation in financial statement items in at least 2 consecutive years	0.733	11.861	2.982
Q20	The high amount of working capital compared to the industry average	0.649	7.967	1.696
Q21	The low turnover period of receivables and its ratio to the company's sales	0.560	7.077	1.534
Q22	No major changes in accounts receivable and their ratio to sales	0.597	6.270	2.405
Q23	The ratio of inventory to the volume and amount of sales	Omitted		
Q24	Increase in fixed assets and its effect on the company's sales	0.764	14.459	1.615
Q25	The amount of orders and prepayments and their relationship with the purchase amount	0.711	12.078	1.598

Q26	The amount of the fee and reserve of the graduate and its relationship with the number of employees	-0.594	2.800	2.738
Q27	The amount of advances and its relationship with sales and facilities received	0.501	6.264	2.335
Q28	The low share of partners' current accounts compared to sales or purchases	-568	2.603	1.436
Q29	Absence of sales to fake and uncredited companies	-0.529	5.788	1.090
Q30	The relatively low number and variety of customers	0.820	4.550	2.638
Q31	Having legal offices and writing them	-0.529	4.925	4.905
Q32	The existence of annual adjustments, especially if the income increaser is taxable	0.889	5.525	4.444
Q33	Bank information of taxpayers (circulation of bank accounts and its connection with company sales)	0.873	6.565	2.701
Q34	Buying or selling in the commodity exchange	-0.504	4.327	4.863
Q35	The number of employees and their ratio to the subject of the company's activity	0.938	5.322	2.841
Q36	Being a government auditor	0.859	24.493	1.871
Q37	The size of the audit institute	0.555	4.320	1.023
Q38	The rank of the auditor's institution (A, B, C)	0.879	23.759	1.879
Q39	Higher amount of audit fees	0.653	7.918	1.019
Q40	Existence of non-audit service fees	0.840	18.666	1.019
Q41	Mandatory submission of audit report	0.761	15.865	1.191
Q42	Submitting the audit report along with the declaration	0.795	21.277	1.247
Q43	Quality of financial audit performed by independent auditors	0.615	7.878	1.101
Q44	Conditional / rejection of the audit report	0.973	7.908	1.045

Q45	A provision about the continuity of the company's activity in the audit report	0.513	3.056	1.039
Q46	Existence of ambiguity about the legal claims of the company in the audit report	-0.540	5.778	1.025
Q47	Increase in GDP	0.528	2.753	1.091
Q48	Balanced inflation rate	0.677	2.590	1.201
Q49	Appropriate employment rate	0.683	3.956	1.283
Q50	Appropriate bank interest rate	0.711	2.716	1.185
Q51	Being a member of the government board	0.537	3.337	1.017
Q52	The presence of institutional shareholders in the composition of shareholders	0.591	3.682	1.027
Q53	The presence of major shareholders in the composition of shareholders	0.698	8.713	1.011
Q54	Existence of tax exemptions and incentives and their relationship with the subject of the company's activity	0.507	3.716	1.591
Q55	Legal permits such as exploitation license, mining license, nominal and actual capacity check	0.602	4.519	2.096
Q56	Matching the declaration information with the information registered in customs, banks, insurance companies, etc.	0.436	3.214	1.140
Q57	Knowledge of tax and accounting laws and regulations (having a financial and tax advisor)	0.555	4.553	1.650
Q58	Company's tax history - Article 189 BC (three consecutive years...)	0.628	5.505	2.066
Q59	Being subject to value added tax	0.508	4.512	1.254
Q60	Offering seasonal deals	0.508	4.226	1.225
Q61	Submission of tax returns on legal dates	0.518	3.577	1.112
Q62	The absence of the company in the list of polluting companies (including pollution charges)	0.567	3.028	1.086
Q63	The attitude of the manager or the financial officers of the company about the tax system	0.671	7.462	1.193

Q64	The attitude of the manager or the financial officers of the company regarding taxes and the necessity of paying them	0.787	14.752	1.340
Q65	The state of the country's tax culture and willingness to pay taxes among taxpayers	0.692	10.235	1.271
Q66	Company type (public shares, private shares, partnership, etc.)	0.522	2.782	1.116
Q67	The number of board members	0.916	48.496	1.036
Q68	The existence of a female member in the composition of the board of directors	0.879	33.067	2.697
Q69	Having a foreign shareholder	0.526	5.118	1.209
Q70	The type of ownership of the company (government or joint stock)	0.925	52.476	3.614
Q71	The percentage of non-executive board members	0.916	46.962	2.593
Q72	Having multiple branches or affiliated companies (domestic and foreign)	0.609	6.199	7.497
Q73	Nature of activity (production, service, trade, contracting)	0.756	10.326	2.816
Q74	The company's activity locations (multiple or far from the office, located in decentralized spaces)	0.629	5.694	2.711
Q75	Firm age (the criterion is the date of obtaining the operating license)	0.611	6.138	7.772
Q76	Taxpayer size (small, medium, and large)	0.692	7.720	2.472
Q77	The amount of registered capital compared to the volume of its operations	0.572	5.156	1.223
Q78	Membership in the stock exchange	0.587	4.965	3.806
Q79	Type of industry (non-sanctioned)	0.518	3.858	1.135
Q80	The possibility of validating the data provided with information systems within the organization	0.865	5.741	3.621
Q81	The possibility of matching the information of sellers and buyers	0.537	3.920	1.049
Q82	The possibility of matching the declaration information with the	0.575	2.938	1.078

	information registered in customs, banks, insurance companies, etc.			
Q83	Non-conformity of Riyal salary list of the tax system and social security organization	0.910	7.208	3.769
Q84	The existence of an integrated system in the company (financial/non-financial)	0.700	10.352	1.130
Q85	Up-to-date system (financial/non-financial)	0.766	15.586	1.164
Q86	Existence of software approved by the Tax Affairs Organization	0.673	7.638	1.098
Q87	The existence of employees with degrees related to their duties	0.755	12.504	1.206
Q88	Having employees with a long experience	0.641	7.215	1.135
Q89	The existence of employees with technical training related to the duties	0.756	17.026	1.118
Q90	Production of branded products	0.611	7.510	1.113
Q91	Production of exclusive products	0.742	6.786	2.401
Q92	Product innovation	0.716	12.690	1.268
Q93	There is a variety in the number of products	0.827	9.053	2.974

Source: research findings

Theoretical summarization and development of the findings of the third question

Composite reliability is the ratio of the total factor loadings of the dependent variables to the total factor loadings plus the error variance, the values of which are between 0 and 1, and it is an alternative to Cronbach's alpha. As seen in Table (9), the standard factor loadings and their t-statistics, composite reliability, Cronbach's alpha and AVE index of all the items and the calculated variables and the obtained values represent the convergent validity and correlation of the constructs.

The requirement to confirm the separate validity is that the value of the average explained variance (AVE) square root is greater than all the correlation coefficients of the relevant variable with the rest of the variables. Pearson's

correlation test results showed that the values on the main diameter have the highest column value, indicating the structures' appropriate validity. Providing audit report, economic factors, balance sheet elements, number and complexity of products and audit factor by 0.73; The number of specialist employees, cultural and social factors, financial and accounting factors by 0.72; audit fees, income sources, other financial and accounting factors and performance and operational characteristics 0.75; company-specific 0.82; expressed taxable income of companies, technical and system, comparing company information with systems and management characteristics have a correlation of 0.77, which express the main diameter, the square root of the average explained variance (AVE).

Table 9. The results of checking the validity of research variables

Variables	**Composite reliability**	**Cronbach's Alpha**	**(AVE)**
Providing an audit report	۰,۸۷۰	۰,۷۵۳	۰,۵۳۰
Economic factors	۰,۸٤۷	۰,۷۵۳	۰,۵۲۷
Balance sheet elements	۰,۸٤٥	۰,۷۵۳	۰,۵۳۲
Number and complexity of products	۰,۷۱۷	۰,۷۰٤	۰,۵۳۰
Number of specialist staff	۰,۷٦۲	۰,۷۳۷	۰,۵۱۷
audit agent	۰,۸۲۱	۰,۷۳۰	۰,۵۳٦
Audit fees	۰,۸۲۰	۰,۷٤۲	۰,۵٦٦
Company specific	۰,۸٤۸	۰,۷۹٥	۰,٦٦٤
Taxable income declared by companies	۰,۹۱٦	۰,۷٤۷	۰,۵۸٥
Other income factors	۰,۸۷۰	۰,۸۲۷	۰,۵٦٤
Other financial and accounting factors	۰,۸۸٦	۰,۷٦٥	۰,۵٦۷
political	۰,۷٤۰	۰,۷۸۱	۰,۵۷٥
cultural and social	۰,۸۳۲	۰,۷۱۰	۰,۵۲۱
Technical and systemic	۰,۷۸٤	۰,۷۲۷	۰,۵۹۰
Legal factors	۰,۷٤۹	۰,۷۱۷	۰,۵۷٥
financial and accounting	۰,۷۹۳	۰,۷٤٦	۰,۵۲۲

Environmental factors	۰,۷۸۷	۰,۷۸۹	۰,۵۷٤
Comparing company information with systems	۰,۷۸۳	۰,۷۱۸	۰,۵۹۸
Auditor's opinion type	۰,۷٤۳	۰,۷۰۱	۰,۵٤۹
Auditor type	۰,۷۹۰	۰,۷۳۳	۰,۵۷۳
Other cost factors	۰,۸۸٤	۰,۸٤۵	۰,۵۹۹
The existence of a standard two-way accounting system	۰,۷۵۷	۰,۷۱۸	۰,۵۱۰
Performance and operational characteristics	۰,۸۱۸	۰,۷٤۵	۰,۵٦۷
Management features	۰,۸۸۹	۰,۸۲۹	۰,۵۹۹

Source: research findings

After checking the reliability and validity of the measurement tools and research structures (external model), it is necessary to test the relationships of the underlying variables (internal model). For this purpose, the path coefficients and t-statistics are respectively presented in figure (2).

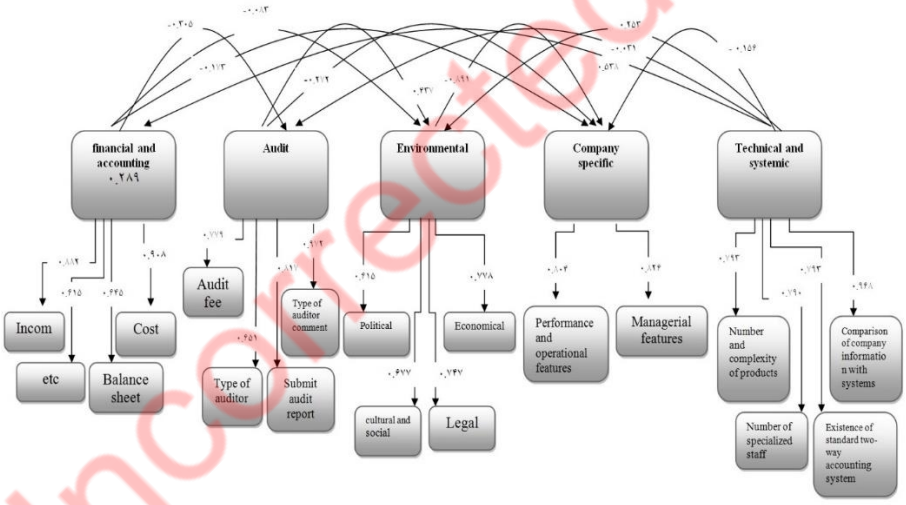

Figure 2. Path coefficients of each of the main components of the research

According to the above figure, the relationship between independent variables and dependent variables is examined. The results of these relations are shown in table (10) based on modeling structural equations using the partial least squares method. According to the results listed in the table, all relationships except "the effect of other financial and accounting factors on financial and accounting factors" are significant, at least at the significance level of 0.05, since their t-statistic value is greater than 1.96. Since all the factors have a higher factor load (greater than 0.05) with their related hidden variable, the above factors are approved for "Validating the taxable income of companies".

Table 10. Path coefficients, t-statistics and model relationship results

Model relationship paths	Path coefficient	t statistic	Coefficient of determination	Result
The impact of "income factors" on "financial and accounting factors."	۰/۴۰۶	۱۲/۶۵۹**	۰/۹۵۲	Confirmed
"cost factors" affect "financial and accounting factors."	۰/۴۵۷	۱۰/۶۷۵**		Confirmed
The "balance sheet factors" impact "financial and accounting factors."	۰/۲۳۱	۴/۷۹۶**		Confirmed
The effect of "other financial and accounting factors" on "financial and accounting factors."	۰/۰۸۶	۱/۱۲۹		Confirmed
The effect of "auditor type" on "audit factors."	۰/۳۹۳	۱۳/۴۹۰**	۰/۹۸۲	Confirmed
The effect of "audit fees" on "audit factors."	۰/۳۹۴	۸/۱۰۰**		Confirmed
The effect of "audit report presentation" on "audit factors."	۰/۴۰۶	۹/۳۹۳**		Confirmed
The effect of "type of auditor's opinion" on "audit factors."	۰/۲۴۲	۲/۳۳۱*		Confirmed
The impact of "economic factors" on "environmental factors."	۰/۳۷۶	۲/۹۵۰**	۰/۹۸۶	Confirmed

The effect of "political factors" on "environmental factors."	۰/۴۱۲	۸/۱۶۸**		Confirmed
The effect of "legal factors" on "environmental factors."	۰/۳۷۰	۶/۱۷۵**		Confirmed
"cultural and social factors" affect "environmental factors."	۰/۴۶۱	۱۰/۴۳۴**		Confirmed
The effect of "management characteristics" on "company-specific factors."	۰/۶۲۴	۱۲/۶۶۹**	۰/۹۹۶	Confirmed
"performance and operational characteristics" affect "company-specific factors."	۰/۶۰۸	۱۲/۶۱۰**		Confirmed
"comparing company information with organizations" affects "technical and system factors."	۰/۲۴۶	۳/۲۵۴**	۰/۹۹۵	Confirmed
The effect of "the existence of standard two-way accounting system" on "technical and system factors."	۰/۳۹۹	۱۸/۱۰۳**		Confirmed
The effect of "number of expert employees" on "technical and system factors."	۰/۴۱۶	۱۶/۴۴۸**		Confirmed
The effect of "number and complexity of products" on "technical and system factors."	۰/۳۱۵	۴/۸۱۸**		Confirmed
The effect of "financial and accounting factors" on "reported taxable income of companies."	۰/۳۸۲	۸/۴۸۲**	۰/۹۹۰	Confirmed

The effect of "audit factors" on "taxable income declared by companies."	۰/۲۳۱	۴/۷۹۱**		Confirmed
The impact of "environmental factors" on "taxable income of companies."	۰/۴۱۸	۱۳/۲۱۰**		Confirmed
The effect of "company-specific factors" on "taxable income declared by companies."	۰/۲۳۸	۳/۰۷۹**		Confirmed
The effect of "technical and systemic factors" on the "taxable income of companies."	۰/۴۰۰	۱۰/۸۰۰**		Confirmed

Source: research findings

The model's validity is determined using the coefficient of determination (R^2), which measures an endogenous variable's explanatory variance by exogenous variables. The coefficient of determination for dependent variables - "financial and accounting factors", "auditing factors", "environmental factors", "company-specific factors", "technical and system factors" and "taxable income declared by companies" is equal to 0.952, 0.982, 0.986, 0.996, 0.995 and 0.990, respectively. This means that 95.2% of the changes in the variable "financial and accounting factors" are explained by the changes in "income", "cost", "balance sheet" and "other financial and accounting factors". Also, 98.2% of the changes in the variable "audit factors" are explained by the changes in the variables "type of auditor", "audit fee", "presentation of audit report" and "type of auditor's opinion". In order to test the overall model and the ability to predict the dependent variables from the independent variables, Stone-Geisser's Q2 coefficient was used. The positive values of this coefficient indicate predictability (Vinzi et al., 2010). Table (11) shows the calculations of the Q2 index for "taxable income of companies" and all its main and secondary factors. According to the table results, the model has good predictive ability.

Table 11. The value of Q2 for the factors affecting the declared taxable income and its dimensions and components

Variables	Q^2 (=1-SSE/SSO)
Financial and accounting factors	۰/۳۳۹
Income factors	۰/۳۰۸
Cost factors	۰/۳۵۷
Balance sheet factors	۰/۱۷۹
Other financial and accounting factors	۰/۳۴۱
Audit agents	۰/۲۸۷
Auditor type	۰/۲۸۸
Audit fees	۰/۱۹۷
Providing an audit report	۰/۲۳۱
Auditor's opinion type	۰/۳۳۲
Environmental factors	۰/۲۰۸
Economic factors	۰/۱۸۸
Political factors	۰/۱۸۸
Legal factors	۰/۲۶۲
Cultural and social factors	۰/۲۰۱
Company specific factors	۰/۲۸۴
Management features	۰/۳۹۳
Performance and operational characteristics	۰/۱۹۴
Technical and systemic factors	۰/۲۲۸
Comparing company information with organizations	۰/۱۹۷
The existence of a standard two-way accounting system	۰/۲۸۴
Number of specialist staff	۰/۱۹۹

Number and complexity of products	۰/۲۱۹
Declared taxable income of companies	۰/۲۵۲

In structural equation modeling using the PLS method, unlike the covariance-based method (CB-SEM), there is no index to measure the whole model, but an index called goodness of fit (GOF) was proposed by Tenenhaus et al. (2004). This index considers both measurement and structural models and is used as a criterion to measure the model's overall performance. The average of R2 and the average of shared values manually calculate this index:

$$GOF = \sqrt{\text{Communality} * R^2}$$ formula (1)

This index is the square root of the product of two common values (Community) and the average coefficient of determination (R Square Average). Since this value depends on the mentioned two indices, the range of these two indices is between zero and one. Wetzles et al. (2009) introduced three values of 0.01, 0.25, and 0.36 as a weak, medium, and strong values for GOF.

The average value of the shared value index is calculated according to the following formula:

$$\text{Communality} = \frac{1}{n}\sum_{1}^{n} \text{Communality}_i$$ formula (2)

The Communality value calculated for the research model is equal to 0.257 and the average value of the determination coefficient index is calculated according to the number of endogenous variables of the model according to the following formula:

$$R^2 = \frac{1}{n}\sum_{1}^{n} R_i^2$$ (۳) formula

The value of R2 calculated for the research model is equal to 0.984.

The GOF index of this model is approximately 0.503. As a result, the model has strong utility.

4. Discussion and conclusion

This research aimed to identify and prioritize the effective components of measuring the validity of the declared taxable income of companies and to provide a comprehensive model in this field. To achieve this goal, three questions were raised. Thus, in the qualitative section, by conducting 15 interviews with tax affairs organization experts as experts, by using the theme analysis method, the primary components of the factors affecting the declared taxable income of the companies were extracted. After the analysis, 93 indicators were identified in the form of 18 sub-themes and 5 main themes, and in the quantitative part to weigh the main and sub-factors, determine the intensity of the relationship between these factors and prioritize them using confirmatory factor analysis and Friedman's test. The structural equation modeling method was used to draw a comprehensive model to determine the validity of the declared taxable income of companies.

The first question of the research was about identifying the factors affecting the validity of the declared taxable income of companies. In order to find the right answer to this question, five main categories were identified: financial and accounting, auditing, environmental, technical and systemic, and company-specific factors.

The financial and accounting factor is one of the most important factors in measuring companies' credibility of expressed taxable income. This factor has been identified in the current research as income, cost, balance sheet, and other financial and accounting sub-components. Hirani et al. (2019) examined the financial and accounting factors identified in the above research as reporting and accounting functions and indicated that 14 indicators (themes) had been emphasized as tax audit risk indicators. In the current research, 35 indicators (themes) have been identified; in addition to the majority of the above research, factors such as taxpayers' bank information, annual adjustments, incidental income, etc., have been introduced as factors affecting the validity of the taxable income declared by companies. Due to the conflict of interest between

the taxpayer and the tax auditor, the concepts identified in the accounting reports prepared by the taxpayer may lead to tax evasion and ultimately tax evasion, which can be minimized through the development of tax culture and it is in line with the research of Perera et al. (2020). None of the indicators of financial and accounting factors identified in this research has been introduced in the studies of Dastgir et al. (2015), Wahyudin et al. (2022), Di Noh et al. (2021), Abdulhamid et al. (2019), which are in line with the present research.

Another important factor identified in measuring the credibility of companies' taxable income is the audit factor. In the current research, these factors have been identified as sub-components of the type of auditor, audit fee, presentation of the audit report, and the type of auditor's opinion. Auditing is a mechanism for crediting companies' financial statements and accounting information, which is the basis for completing taxpayers' tax returns. According to Hirani et al.'s results (2019), only the quality index of a financial audit performed by independent auditors and the index of providing financial and tax audit reports in the results of Dastgir et al. (2015) and Wahyudin et al. (2022) has been introduced as audit factors. In the current research, 9 other indicators (themes) have been introduced as auditing factors in addition to the mentioned indicators. In other studies, which align with the present research, no index has been introduced as an audit factor.

The environmental factor is one of the other factors that have been identified in determining the validity of the declared taxable income of companies. Current research identifies this factor as legal, cultural, social, economic, and political sub-components. From the point of view of tax auditors, it is expected that taxpayers who comply more with their legal duties have less risk and present information related to their performance to users in a timely and accurate manner; therefore, failure to provide timely and correct information is considered as bad news and indicates a higher risk for the taxpayer. This is in contradiction with the theory of information validity and the theory of trust and causes a decrease in the validity of information expressed by taxpayers. Environmental factors have been introduced as environmental conditions, and factors in Hirani et al.'s research (2019) and economic factors in the research of Green et al. (2022) are consistent with the present study's results. The index of the presence of institutional shareholders in the research of Dastgir et al. (2015), indicators of tax culture, knowledge of tax laws and regulations, and

the attitude of the manager or financial officers of the company regarding the tax system in the research of Gechert & Heimberger (2022), Keno (2020), da Silva et al. (2019), Inasius (2019), Nyarkpoh (2018) and Abdul Hamid et al. (2019) have been taken into consideration, and the environmental factors identified in the current research are contrary to the results of Di Noh et al. (2021).

As for the factor of the company-specific, the sub-components of the performance, managerial and operational characteristics have been identified in determining the validity of the companies' taxable income. Since the above items have a significant impact on the credibility of taxpayers' tax returns, environmental factors and variables extracted from interviews with experts have been presented to evaluate the role and importance of each of them in the credibility of the declared taxable income declared by companies. The identified indicators of specific factors such as the company's membership in the stock exchange, whether it is public or private, the number of board members, having a foreign shareholder due to the requirement to provide more transparent financial information and stricter regulations can be effective in determining the validity of the declared taxable income. In the research of Hirani et al. (2019), specific factors are defined under the title of sub-component of the general characteristics of the taxpayer in 5 indicators (themes), and in the research of Dastgir et al. (2015) under the title of characteristics of legal taxpayers and in 6 indicators (themes). The above is consistent with the results of the present study. In other mentioned studies in the previous parts, which are in line with the current research, no indicators have been introduced as specific factors of the company.

Technical and systemic factors in this research mean the items related to the company's information in the systems at the organisation's disposal, the accounting system used by taxpayers, employees, and the type of taxpayers' products. Technical and systemic factors allow validation of the taxpayer's data with internal and external information systems. The more comprehensive and extensive this possibility is, the less information asymmetry between the tax auditor and the taxpayer. In addition, the taxpayer's awareness of the possibility of matching the data is an obstacle in expressing false information. Data reconciliation will be done through external information systems (such as customs, social security, and banks), internal information systems (such as

quarterly transaction statements and salary lists), and information from similar companies. The taxpayer has an informational advantage over the tax auditors due to his knowledge and access to his information and industry. The greater this information advantage is, the taxpayer's failure to provide information that is inaccessible to the tax auditor leads to the incorrect selection of the auditor, which is in contradiction with the theory of information validity and the law of truthfulness and reduces the validity of the expressed information and trust to the taxpayers. Technical and system factors in Hirani et al.'s research (2019) have been identified in 8 indicators (themes) under the title of the main component of data adaptability and the sub-component of customer and product characteristics. In the current research, technical and systemic factors have been identified in 14 indicators (themes), and also the results of the Niarkpoh (2018) research are in line with the current research. In other studies mentioned in the previous parts, which align with the current research, no index has been introduced as a technical and systemic factor.

Most of the indicators presented in this research are consistent with the existing literature. Still, despite many similarities, many special components and factors have been introduced and emphasized in this model. In other words, although each of the previous studies has identified a part of the effective factors in determining the validity of declared taxable income and tax audit risk, the current research can be considered comprehensive research considering all the factors affecting the validity of the declared taxable income of the companies. It should be noted that there is a possibility that the indicators introduced in this research have been identified according to the specific conditions in Iran.

The second research question was about the prioritization and weight of each effective factor in determining the validity of companies' taxable income. The relevant results are shown under the title of main factors in Table (5) and sub-components in Table (7). The prioritization and weight of each factor in the current research are contrary to the results of Hirani et al. (2019). In other studies mentioned in the previous parts, which are in line with the present research, variable prioritization and weighting have not been done.

The third question of the research was about the comprehensive model for determining the validity of the declared taxable income of companies, the

model of which is presented in figure (1). One of the achievements of this paper is the model presented for determining the validity of the declared taxable income of companies, that according to the studies conducted in the literature the researcher has not dealt with cases that have been addressed to this concept; therefore, it has led to increased knowledge in the field of accounting and taxation.

Therefore, according to the explanations above, it can be said that the assessment of the validity of the taxable income declared by companies has a very important effect on the system of self-declaration of taxes by companies and the easy collection of taxes by the tax administration. But with the correct application of the model presented in this research, it can be said that the self-declaration of companies to pay taxes on time will increase. Therefore, based on the obtained results, the following suggestions are provided:

Research implications

• It is suggested that the Tax Affairs Organization complete the companies' tax returns as public information. If companies know their tax information is public and available to everyone, they lose motivation to hide their incomes and activities.

• Expanding the tax culture in the light of the truth-telling law in society can help the tax affairs organization to obtain highly reliable information. On the other hand, it is suggested that the Tax Affairs Organization, following the theory of trust, have a more appropriate direction toward developing laws, regulations, and tax mechanisms.

• One of the most important factors that experts think is effective in improving the tax culture is providing information related to tax issues in line with the expansion and institutionalization of the theory of trust and the law of telling the truth. Although it is not a sufficient condition, it is a necessary condition. In the textbooks, social centers, cinemas and television films or radio programs of the country, there is almost no sign of the tax issue, which is the most vital issue of a healthy economy (if there is, it is very weak). While it is possible to

correct the existing situation and create fundamental changes through advertising and awareness through radio and television. Also, the inclusion of a lesson on the importance and place of taxes in the programs of different educational levels, the promotion of the idea of an abundant land by paying taxes in the press and mass media, emphasizing the increasing importance of public benefits from paying taxes, and increasing the share of citizens and the lower classes of society is recommended.

• In order to overcome the country's tax system from the current unfavorable situation, it is necessary to carry out fundamental reforms in each of its pillars. In other words, having an efficient tax system will depend on improving the weaknesses of the mentioned pillars, so it is necessary to amend the tax laws and regulations, especially the amendment of the direct taxes law, expand the tax base and carry out fundamental reforms. In the tax affairs organization, in light of the expansion of the theory of trust in the tax system, they should be considered as the basic strategies for reforming the tax system. Also, in parallel with doing these things, improving the society's general culture should be placed on the agenda of the institutions in charge of the country's culture as a long-term issue.

• Changing the declaration form by the country's tax affairs organization to facilitate the submission of taxpayers' information. All over the world, tax affairs organization prepares the default declaration based on the information in the database. It provides it to the taxpayer, and the taxpayer submits the changes, and the information that the organization can receive from other authorities will not be collected from the taxpayer again. This has not been done in Iran, and all information is obtained from the taxpayer.

Further to the study

Considering the lack of sufficient and comprehensive studies in the field of identifying the factors affecting the validity of taxable income declared by taxpayers in the country, it is suggested to the researchers that in order to develop the subject and enrich it, the following subjects should be included in the focus.:

• Providing a suitable model to explain the factors affecting the validity of the declared taxable income of natural persons.

• Compilation and presentation of training packages on factors affecting the credibility of taxpayers' information for tax auditors of the Tax Affairs Organization according to their organizational level.

• Examining how to use big economic data or data from different organizations to evaluate the factors affecting the validity of the declared taxable income.

Considering that the implementation of any scientific research will face limitations, the possible limitations of the current research can be stated as follows:

• Non-cooperation of some members of the determined statistical society

• The statistical population of the current research only included auditors of the Tax Affairs Organization as interviewed experts, and therefore, the use of another statistical population, such as academics, independent auditors, certified accountants, etc., may lead to different results.

• Structural equation method was used to extract the research pattern; according to previous research, it is expected that different results will be obtained if other methods, such as non-linear decision-making patterns, are used.

• The use of the questionnaire tool in a part of the research may have caused some inherent limitations of this tool to the results of this research, which was basically unavoidable.

References

Kiser, E.; Karceski, S.M. (2017). Political Economy of Taxation. Annu. Rev. Polit. Sci. 20, pp75–92. https://doi.org/10.1146/annurev-polisci-052615-025442

Siimon ÕR, Lukason O. (2021). A Decision Support System for Corporate Tax Arrears Prediction. *Sustainability*. 13(15):8363. https://doi.org/10.3390/su13158363

Barbu, L.; Mihaiu, D.M.; S, erban, R.-A.; Opreana, A. (2022). Knowledge Mapping of Optimal Taxation Studies: A Bibliometric Analysis and Network Visualization. Sustainability. 14, 1043. https://doi.org/10.3390/su14021043

Umar, M.A., Derashid, C., Ibrahim, I. and Bidin, Z. (2019). Public governance quality and tax compliance behavior in developing countries: The mediating role of socioeconomic conditions, International Journal of Social Economics. 46(3). 338-351. https://doi.org/10.1108/IJSE-11-2016-0338

Al-Rahamneh NM, Bidin Z. (2022). The Effect of Tax Fairness, Peer Influence, and Moral Obligation on Sales Tax Evasion among Jordanian SMEs. *Journal of Risk and Financial Management*. 15(9):407. https://doi.org/10.3390/jrfm15090407

Dehghani Doyle, M. (2019). Investigating the obstacles and capabilities of the tax affairs organization's audit system for implementing risk-based tax audit (case study: tax departments of Ardabil province) by Delphi method. Master Thesis. Islamic Azad University of Ardabil Branch, Iran. (In Persian)

Masrullah, M., Asriati, A., & Alfiah S, N. R. (2021). Implementation of self assessment system in paising compliance awareness paying tax in Gowa district. Amnesty: Jurnal Riset Perpajakan, 4(1), 23–33. https://doi.org/10.26618/jrp.v4i1.5304

Batrancea, L., Nichita, A., Olsen, J., Kogler, C., Kirchler, E., Hoelzl, E., Weiss, A., Torgler, B.,Fooken, J., Fuller, J., Schaffner, M., Banuri, S., Hassanein, M., Alarcón-García, G., Aldemir,C., Apostol, O., Bank Weinberg, D., Batrancea, I., Belianin, A., ... Zukauskas, S. (2019). Trust and power as

determinants of tax compliance across 44 nations. Journal of Economic Psychology. 74, 102191. https://doi.org/10.1016/j.joep.2019.102191

Gechert, S., & Heimberger, P. (2022). Do corporate tax cuts boost economic growth? European Economic Review. 147, 104157. https://doi.org/10.1016/j.euroecorev.2022.104157

Wahyudin, D., Tyas, I.R., Atmojo, A., Andrayanti, I. and Julina, F., (2022). The Effectiveness of Tax Audit as a Self Assessment System Supervision Measures and Tax Revenue Support (Study at the Large Tax Office 4). Ilomata International Journal of Tax and Accounting. 3(3), 258-271.https://doi.org/10.52728/ijtc.v3i3.501

Pui Yee, C., Moorthy, K. and Choo Keng Soon, W. (2017), "Taxpayers' perceptions on tax evasion behaviour: an empirical study in Malaysia", International Journal of Law and Management, Vol. 59 No. 3, pp. 413-429. https://doi.org/10.1108/IJLMA-02-2016-0022

Belay, M .(2017). Challenges of Tax Audit Administration in Addis Ababa: evidence from Small Tax payer Branches (Doctoral dissertation, St. Mary's University). http://hdl.handle.net/123456789/3173

Gupta M, Nagadevara V. (2007). Audit selection strategy for improving tax compliance: application of data mining techniques. In Foundations of E-Government, ed. A Agarwal, VV Ramana. 378–87. New Dehli: Gift Publ.

Barzegari Khanqah J, Faizpour M.A. (2012). Risk-based tax audit: Experiences from developed and developing countries. Journal of Envy Research, No. 8, 123-142.

World Bank. (2011). Supporting the development of more effective tax systems. Report to the G-20 development-working group.

Khwaja, M.S., Awasthi, R. and Loeprick, J. eds. (2011). Risk-Based Tax Audits-Approaches and Country Experiences, The International Bank for Reconstruction and Development/The World Bank, 1818 H Street NW, Washington DC 20433.

Adam, A., Kammas, P., & Lapatinas, A. (2015). Income inequality and the tax structure: Evidence from developed and developing countries. Journal of

Comparative Economics, 43(1), 138-154. https://doi.org/10.1016/j.jce.2014.05.006

Bryce, L. A., Bonfatti, R., & Luigi, P. (2016). Tax policy and the financing of innovation. Journal of Public Economics, 135. https://doi.org/10.1016/j.jpubeco.2015.12.010

Barzegari Dehaj M, Keyghobadi A, Yaghoobnezhad A, Jahanshad A(2021). Providing a Model for Preparing an Estimated Tax Return with the Provisions of Article 97 of the Direct Taxes Act. J Tax Res. 29 (49) :61-82. DOI: 10.52547/taxjournal.29.49.61

Dastgir M, Izadinia N, Askari A, Ramezani M M. (2015). Providing a Model for Corporate Risk- based Audit Selection in Iran. J Tax Res. 23 (25) , 9-44. http://taxjournal.ir/article-1-222-fa.html

Heyrani, F., Zareian, H., moeinadin, M. (2020). 'Identification of Effective Indicators on Tax Audit Risk by Mixed Explanatory Method', *Journal of Management Accounting and Auditing Knowledge*, 9(33), pp. 120-140. https://jmaak.srbiau.ac.ir/article_15638.html?lang=en

Inasius, F., (2019). Factors influencing SME tax compliance: Evidence from Indonesia. *International Journal of Public Administration*, *42*(5), pp.367-379. https://doi.org/10.1080/01900692.2018.1464578

Abd Hamid, N., Ibrahim, N. A., Ibrahim, N. A., Ariffin, N., Taharin, R., & Jelani, F. A. (2019). Factors affecting tax compliance among Malaysian SMEs in e-commerce business. *International Journal of Asian Social Science*, 9(1), 74-85. https://doi.org/10.18488/journal.1.2019.91.74.85

Green, D.H., Henry, E., Parsons, S.M. and Plesko, G.A. (2022). Incorporating Financial Statement Information to Improve Forecasts of Corporate Taxable IncomeFinancial Statements and Forecasting Corporate Taxable Income. *The Accounting Review*, 97 (7): 169–192. https://doi.org/10.2308/TAR-2020-0074

Moradi Mahdi, Bayat Naeimeh. (2018). Advanced Auditing. Mashhad, Marandiz Publications.

Coleman, James S. (1994). Foundations of Social Theory. Harvard University Press, 241.

Qaranjik, E., ZiaaDdini, M., Hadavinejad, M. (2021). 'Cognitive mapping of Influencing factors on participation in tax payments', *Public Administration Perspaective*, 12(3), pp. 57-76. doi:1052547/jpap.2021.214014.0.

De Neve, J.E., Imbert, C., Spinnewijn, J., Tsankova, T. and Luts, M. (2021). How to improve tax compliance? Evidence from population-wide experiments in Belgium. *Journal of Political Economy*, *129*(5), pp.1425-1463. https://doi.org/10.1086/713096

Da Silva, F. P., Guerreiro, R., & Flores, E. (2019). Voluntary versus enforced tax compliance: the slippery slope framework in the Brazilian context. International Review of Economics, 66(2), 147-180. https://link.springer.com/article/10.1007/s12232-019-00321-0.

Dictionary of Principles of Jurisprudence, Center for Islamic Information and Documents, p. 843.

Liu, B. (2010). Uncertainty Theory. In: Uncertainty Theory. Studies in Computational Intelligence, vol 300. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-13959-8_1

Johnson, Lawrence, E. (2006). focusing on truth, London: Routledge.

Moloudi, M., Hamze Howeyda, M. (2012). 'Theories of Truth and their Application in Civil Procedures', *The Judiciarys Law Journal*, 76(79), pp. 73-98. doi: 10.22106/jlj.2012.11047.

Nyarkpoh, M. F. (2018). Trust in Government and Tax Compliance: An Empirical Evidence from Ghana. Doctoral dissertation, University Of Ghana. http://ugspace.ug.edu.gh/handle/123456789/30323

Kenno, B. G. (2020). Factors Affecting Perception of Taxpayers towards the Seriousness of Tax Evasion in Bale Robe Town Administration, Oromia, Ethiopia, International Journal of Finance and Accounting, 9 (2), 21-30 .DOI: 10.5923/j.ijfa.20200902.01

Bani-Khalid, T., Alshira'h, A.F. and Alshirah, M.H. (2022). Determinants of Tax Compliance Intention among Jordanian SMEs: A Focus on the Theory of Planned Behavior. *Economies*, *10*(2), p.30. https://doi.org/10.3390/economies10020030.

Perera, D., Chand, P., & Mala, R. (2020). Confirmation bias in accounting judgments: the case for International Financial Reporting Standards for small and mediumsized enterprises. Accounting & Finance, 60(4), 4093-4119. https://doi.org/10.1111/acfi.12523.

Tilahun, M., (2019). Determinants of tax compliance: a systematic review. Economics, 8(1), 1-7. doi:10.11648/j.eco.20190801.11

Creswell JW, Plano Clark VL.(2007) "Designing and conducting mixed methods research". Thousand Oaks, CA: Sage.

Plano Clark, V., Creswell, J., O'Neil Green, D., & Shope, R. (2008). Mixing quantitative and qualitative approaches: An introduction to emergent mixed methods research. In: S. HesseBiber & P. Leavy (Eds.) Handbook of emergent methods, New York: The Guilford Press.

Vinzi, V.E., Chin, W.W., Henseler, J. and Wang, H. (2010). Handbook of partial least squares (Vol. 201, No. 0).٨٢-٤٧ . Berlin: Springer.