



The impact of tax measures on environmental conservation and achieving sustainable development Study and evaluation of tax in a view of modern economic developments

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Abstract:

The research aims to understand the impact of tax policies on the environment and the economy and to provide practical recommendations for designing future tax policies that promote environmental conservation and achieve sustainable development. By evaluating the tax in a view of recent economic developments, and that tax policies play an effective role in promoting environmental sustainability, encouraging companies to adopt sustainable environmental practices by providing tax incentives for environmental initiatives. Environmental taxes direct economic behavior towards the sustainable use of resources and promote the transition to environmentally friendly technologies and practices by imposing taxes on polluters and unsustainable practices. The researchers used a questionnaire form to sample academics in the city of Sulaymaniyah. 40 questionnaires were distributed electronically and were valid for analysis. Several results are confirmed, the most important of which is that tax procedures such as environmental taxes encourage international cooperation in the field of environmental conservation and promoting sustainable development. As a result, it is recommended there is a need to pay attention to developing effective mechanisms for assessing the environmental impact of tax policies, including estimating the impact on carbon emissions and consumption of natural resources.

Keywords: Tax accounting, fiscal policy, environment, sustainable development.

1. Introduction

Tax policy's effects on environmental outcomes and sustainable development are complex and warrant thorough study. This effect depends on various factors, including tax law design and implementation and their potential to promote green conduct. Taxes significantly affect greenhouse gas emissions and resource use. We could tax carbon to incentivize companies and individuals to reduce emissions. Taxes can also stimulate renewable energy sources like solar and wind and energy efficiency.

Equally crucial is understanding how these practices affect economic growth. Business spending on pollution fees may affect production costs and product prices. We can promote environmental and renewable energy innovation and sustainable development with these tax monies. We can assess tax measures' economic and environmental impacts by comparing them to prior events. Complex



economic and environmental models are needed to evaluate long-term effects and adapt plans depending on actual data. Thus, tax policies can help achieve sustainable development by balancing environmental protection and economic growth.

In conclusion, studying taxes in the context of current economic trends requires careful research methods to determine how environmental taxes affect economic and environmental behaviour and how cost-effective these policies are at achieving sustainable development and environmental preservation.

Tax measures affect environmental conservation, and sustainable growth is crucial given today's environmental issues. Tax policy can promote environmental sustainability when viewed considering recent economic changes. Tax incentives for environmental efforts might encourage corporations to adopt sustainable practices. Pollutant levies can also encourage corporations to cut emissions and improve their environmental performance. The research problem can be formulated by asking: is there a growing understanding of the need to balance economic growth and environmental protection, the importance of tax policies as a tool to achieve this balance, and encourage investment in green infrastructure and sustainability? Can extensive analytical studies on tax's function in balancing economic growth and environmental protection provide ideas for building future tax policies and procedures to accomplish sustainable development goals?

Research's significance is illustrated by: The analysis helps explain how tax policy can encourage environmental protection without hurting economic growth. Tax measures alter sustainability behaviours and attitudes. It helps preserve the environment and reduce environmental deterioration that threatens sustainable development. Tax policies and processes help society develop a long-term, stable economy.

Objectives of the research include: Taxing pollution and encouraging green investments are examined to see how tax policies affect environmental conservation and sustainable development. We study how corporations and individuals react to environmental tax initiatives and how this affects their environmental behaviour and investments. It examines how environmental tax policies affect economic growth, employment, and wealth distribution. Making tax policy suggestions that encourage environmental conservation and sustainable development. Find strategies to reconcile commercial interests with environmental conservation and effective tax policy.

Three chapters comprise the study. First chapter covers study's theoretical foundation and research methods. The second chapter discusses the study's empirical component, specifically questionnaires to investigate research axes. The final chapter has two conclusions and suggestions sections.

Literature Review

2.1 Conceptual framework of tax

2.1.1 Concept and definition of tax

A tax is a financial collection imposed by a state or government on individuals, businesses, and institutions, usually as a specified percentage of the value of inputs, expenditures, wealth, or income. Taxes are used to finance public services provided by the government to citizens, such as health, education, infrastructure, and social security. The types of taxes and methods of collecting



them vary from one country to another and can be in the form of income taxes, sales taxes, property taxes, and others. (Bin Shaib, 2019,18)

The tax policy of any country must be based on a set of rules (Al-Ashmawy, 2023: 6), the most important of which are:

Determining the priority objectives of the state’s tax system, within a specific period, without ignoring the political, economic, and social reality internally and externally.

Coordination between tax policy and other economic policies.

The appropriate combination and combination of tax policy instruments when determining the tax structure.

Reducing the contradictions resulting from tax policy decisions in its pursuit of achieving its objectives, including expanding the granting of tax privileges to achieve economic or social goals, which may be at the expense of the financial objective of the tax.

2.1.2 Tax policy objectives:

The role of tax and its system is represented in the economic aspect as one of the most important goals of economic and sustainable development alike, as taxes are the most important sources of revenues and national income and one of the basic pillars that guarantee the state by increasing its budget, in addition to what it provides through tax exemptions and incentives to encourage projects or to employ them in new or remote cities or to projects to practice the desired economic activities of producing goods directed for export. On the other hand, it is possible to decide on a strict tax treatment that resists activities that harm the national economy or that do not suit the stage of development that the country is going through, by imposing high tax rates on these types of activities or depriving them of tax incentives. For example, high taxes are imposed on the automobile industry in some countries to limit its expansion and enable other basic industries that the country sees the need to develop (Al-Ashmawy, 2023: 6).

2.1.3 The role of environmental policies and environmental taxes in achieving sustainable development

Environmental policies depend on a set of means and tools to apply them on the ground and activate them to achieve their goals, the most important of which are regulatory and economic tools, which we will summarize as follows and show their relationship to achieving sustainable development (Narmen et al., 2016). Regulatory tools are represented in the orders issued by the administrative authorities concerned with protecting the environment, mainly represented in the prohibition or permit, also called control and control restrictions when they are related to the source of pollution, and the way to impose them on others, as the restrictions determine the place and methods of any; where and how pollution is reduced, or about the deterioration of natural resources and other environmental areas, and over time the Environmental Protection Law has become an independent law (Saed et al., 2021).

Economic tools work to introduce external effects resulting from environmental problems and do not take into account the social costs resulting from economic activities by relying on market



forces, through influencing the cost of production, which is transferred in whole or in part to the prices of goods and services produced, and then influencing their relative structure, and this, in turn, may affect the volume of consumption through what is known as incentives and disincentives, and these economic tools are divided into three sections: (Environmental Protection Law, 2016).

Environmental collection (environmental fees).

Tradable license system: such as ownership theory, privatization of materials, comprehensive share of pollution rights, etc.

Other tools: such as grants and credits.

The effects of taxes on the environment and sustainable development can be determined through: (Abu Ajwa et al.,2018,37)

Imposing environmental taxes on factory emissions achieves sustainable development.

Develop environmental awareness and provide trained workers to achieve sustainability.

C- The tax system can eliminate or reduce negative environmental impacts, whether by imposing an environmental tax, granting incentives, or accelerating depreciation for facilities that preserve the environment.

2.1.4 The concept of sustainable development and its goals:

Sustainable development is a process of development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. The concept aims to achieve a balance between the economic, social and environmental dimensions of development, while conserving natural resources and improving the quality of life for communities (Abdullah, 2024).

One of the most important sources of the concept of sustainable development and its goals is the report "Sustainable Development:

The Balance between Economy, Environment and Society" was issued by the Bremond Commission (Brundtland Commission) in 1987, which was the United Nations Commission on Environment and Development. The report is famous for its definition of sustainable development as: "meeting the needs of the present without compromising the ability of future generations to meet their own needs."

The sustainable development goals are a set of goals that international communities seek to achieve to ensure sustainable development of the environment, economy, and society. The most prominent of these goals is the set of global goals for sustainable development (SDGs), adopted by the United Nations in 2015, which include 17 goals covering a wide range of issues including poverty and hunger, education, gender equality, environmental conservation, clean water and sustainable energy (United Nations Report, 2022).

2.1.5 Analysis of economic instruments for environmental conservation: Top of Form

Preserving the environment requires the use of a variety of economic tools that encourage sustainable behaviors and limit activities that harm the environment. Here are some economic tools that can be used to achieve this goal: (A) Taxes on environmental emissions, (B) Some



governments organize the trading system with privileges and allow privileges to be traded between companies, (C) Price signals that can be used to motivate environmental conservation by changing prices, (D) Providing incentives for the use of renewable energy and the application of sustainable agricultural practices, (E) Establishing laws and regulations that ensure compliance with strict environmental standards (Lazar, 2021, 131).

By using these economic tools appropriately and effectively, individuals and companies can be motivated to take actions that preserve the environment and contribute to achieving sustainable development.

2.1.6 Types of tax measures used to protect the environment and clean technology:

These are a few of the tax policies that can be used to protect the environment and promote sustainable development. The effectiveness of these interventions is dependent on their proper design and efficient implementation by the governments and institutions involved. There are some types of tax policies used to safeguard the environment (Al Hindawi, 2022, 12):

A- Environmental taxes apply to activities that pollute the environment or deplete natural resources. Many countries, for example, levy fees on factory and automobile emissions of carbon dioxide.

B- Some governments utilise a trading system with privileges (Cap and Trade) to minimise environmental emissions, in which limitations are set for certain pollutants and concessions can be sold between firms. industries who are more effective at decreasing emissions can sell their excess concessions to industries that exceed the emission limitations.

C- Governments offer tax breaks to businesses and individuals that adopt clean technology and sustainable environmental practices (Al-Talafha and Al-Manawir, 2020, 34).

D- Governments may levy taxes on the usage of nonrenewable natural resources such as water and minerals.

E- Some countries utilise tax policies to encourage sustainable development.

2.1.7 Environmental tax application mechanisms and evaluation of their effectiveness:

To ensure that the targeted environmental goals are met, environmental taxes must be implemented via appropriate mechanisms. The methods for their application can be examined and their effectiveness assessed in a variety of ways. (Gasper, 2020: 67)

A- Environmental taxes should be used to achieve specific environmental goals, such as lowering harmful emissions, improving water quality, and conserving biodiversity .

B- The tax base should be adjusted to reflect the true cost of pollution or usage of natural resources. Tax rates should also be established in a way that balances environmental aims with economic stability.

C- The tax system should be transparent and accessible to all, allowing businesses and individuals to understand how taxes are computed and assure their fairness. There should also be accountability measures in place to guarantee that taxes are properly enforced (Iraqi Tax Controls and Procedures, 2023).



D- Tax breaks for clean technology and sustainable environmental practices can help encourage businesses to embrace more environmentally responsible activities.

E- Governments should offer technical assistance and direction to businesses and individuals on how to comprehend environmental taxes, reduce pollution, and implement sustainable environmental practices. (Al-Rifi, 2014, 17)

2.1.8 Impact of tax policies on various environmental aspects:

It is important to do a thorough study of how these rules will impact different external factors. There are some things that can be thought about, but the most important ones are: (World Government Summit, Dubai, 2019).

A: To find out how well tax policies reduce pollution like carbon dioxide and fuel emissions, you can compare emission levels before and after the policies are put in place and figure out how much they drop.

B. The effects of tax policies on how water, woods, soil, and other natural resources are used can be studied. Estimating how much natural resources are used and how they change after policies are put in place shows how well they are protected.

C- Keeping track of how taxes change costs, profits, and companies' ability to react is one way to figure out how tax policies affect innovation and the economic competitiveness of industries and companies that are affected.

D—The effect of tax policies on making sure that businesses and people share the environmental burden fairly can be measured. The effect on low- and middle-income areas can be compared to the effect on high-income groups.

It is possible to figure out how tax policies affect people's choices about what to buy and how much they affect people's choices about what to buy that is better for the environment. This can cause people to change their buying habits to be more environmentally friendly (Papageorgiou, 2019, 28). What are some things that can be thought about when figuring out how well tax policies protect the environment and reach the environmental goals that are wanted?

2.1.9 The role of tax policies in achieving sustainable development:

It may be seen in several significant characteristics that contribute to the direction of the economy in the direction of environmental and social sustainability (Lagarde, 2018, 58). Tax policies can direct investments towards the development of sustainable infrastructure, such as clean public transportation, renewable energy generation, and water resource management. This is accomplished by providing tax incentives for projects and investments that support sustainable development. It is possible for environmental taxes to encourage businesses and individuals to utilise resources more efficiently and to apply sustainable production and consumption practices. This, in turn, contributes to the reduction of waste and the protection of natural resources. The promotion of innovation and the development of technologies that support sustainable development and improve environmental quality can be accomplished through the provision of tax incentives for investments in environmentally friendly technologies and technologies that offer new solutions to environmental



problems. The policies that govern taxes have the potential to improve the equilibrium between the economic, environmental, and social aspects of sustainable development. This is accomplished by directing investments and public spending towards various sustainable development priorities.

In general, tax policies are regarded as an efficient method of directing economic behaviour and fostering sustainable growth. This is because they strive towards achieving a balance between the economy, the environment, and society, and they help to the creation of robust and sustainable economies throughout the course of time, according to Al-Shammari (2015).

2.1.10 Impact of tax measures on sustainable development:

Taxes can have a major impact on sustainable development. Some examples of how these measures effect sustainable development: (Abdul and Shalal, 2023:137)

A- Tax policies can drive investments to sustainable sectors and industries, boosting sustainable development.

B- High-quality modern technology and environmental solutions can boost innovation and development.

C- Environmental taxes can modify consumer and business consumption habits, improving resource efficiency and reducing environmental impact.

D- Environmental taxes and incentives for socially and environmentally responsible corporations can help companies promote sustainable development.

E-tax policies can balance economic, environmental, and social sustainability (Tawahariya, 2022, 43).

Thus, tax measures can promote sustainable development if they are carefully conceived and implemented to meet environmental, social, and economic goals (Abdulrahman et al., 2022).

2.1.11 Tax policies and promoting sustainable and inclusive economic growth:

Tax policies can play a vital role in promoting sustainable and inclusive economic growth, through several mechanisms and methods, including: (Asia, 2021, 39)

A- Tax incentives, such as tax breaks or low-tax investments, can encourage companies to increase investments in infrastructure, research and development, and clean technology, which contributes to enhancing economic growth.

B- By providing tax incentives to emerging and innovative companies, entrepreneurship can be encouraged and innovation stimulated, which contributes to diversifying the economy and improving productivity.

C- Environmental taxes or tax incentives for renewable energy or environmental technology can encourage investment in more sustainable sectors, contributing to sustainable economic growth in the long term.



D- Tax policies, by providing tax incentive programs for lower-income groups, can help improve the distribution of income and wealth, which enhances economic stability and promotes inclusive growth.

In general, tax policies play an important role in creating an economic environment that encourages investment, innovation, and the transition towards a sustainable and inclusive economy (Akalpler, 2020). With the right guidance and good design, these policies can be an effective tool in achieving economic, social, and environmental goals alike.

2.1.12 Social and economic impacts of implementing tax policies:

The implementation of tax policies can affect different segments of society in a variety of ways, and these effects vary depending on the type of tax, its directions, and economic and social circumstances. Here is a review of some of the main social and economic effects: (Asiya and Hanish,2021: 34)

A- Social and income classes:

Taxes may greatly affect low-income individuals, as tax pressures may increase on them relatively more than they may affect the standard of living. While taxes may have various effects on the middle classes and may contribute to a more equitable distribution of the tax burden or affect their purchasing power.

B- Economic sectors: OECD, 2018: 21)

Corporate taxes can be a catalyst for growth and innovation in small and medium-sized enterprises, or they can be a constraint on economic activity, depending on the tax structure and investments. Whereas taxes on service industries can significantly affect costs and demand for services, which can impact sector growth and employment.

C- Urban environment:

- Urban population: Taxes can significantly affect the cost of living in cities and urban areas, affecting individuals' purchasing power and influencing urban migration rates.
- Rural population: Taxes may affect rural populations differently, as they may affect smallholder farmers and impact their local economy.

D- Industrial and professional sectors:

- Traditional industrial sectors: Taxes on traditional industries may be a limiting factor on economic growth, especially if alternative options for diversifying the economy are not available. (Adel, 2020 : 19)
- Modern industrial sectors: Taxes on modern sectors can be a stimulus to innovation and technological development, especially if there are tax incentives for investment in research and development.

Balancing the social and economic impacts of implementing tax policies requires a comprehensive study to determine the expected impact and take the necessary measures to reduce any undesirable negative effects and enhance the positive effects on society.

In a view of the research problem and its objectives, the following hypotheses were formulated:



1. There is a statistically significant relationship and effect between tax procedures and environmental conservation towards green investments.
2. There is a statistically significant relationship between tax procedures and environmental conservation in achieving sustainable development goals.

3. Data Analysis

The study relied on the use of the deductive method based on the available official documents, periodicals, books, articles, and university theses. As for the practical aspect, only the opinions of many professors from the University of Sulaymaniyah and the University of Human Development in the specialization of accounting, management, economics, and marketing were surveyed electronically by relying on the questionnaire form. The data were analyzed, and the hypotheses were proven using the statistical program SPSS.

3.1 Search tool:

This aspect deals with presenting the research tool by analyzing the characteristics of the people in the research sample (the number of academics at the University of Sulaymaniyah and the University of Human Development). A questionnaire consisting of three axes was constructed in the appendix (1) The first axis was allocated to personal information, while the second axis was allocated to tax procedures, the second axis to environmental conservation, and the third axis to sustainable development), using a five-point Likert scale. Accordingly, the distribution of the average weight values becomes as follows: from 1 to 1.79 Totally agree, of 1.80 to 2.59 disagree, 2.60 to 3.39 neutral, 3.40 to 4.19 agree, 4.20 to 5 completely agree.

3.2 Statistical programs used in the research:

The program was used (SPSS V24) to describe the levels of availability of the research variables through the average weights and standard deviation. In addition, the program (Smart PLS 3) was used, which is a stand-alone program specialized in implementing research models and models for analyzing the study using the partial least squares method (PLS-SEM), following Abdullah (2020). A significance level of (0.05) was also adopted.

3.2.1: General Information

Table (1) Distribution of the research sample individuals according to general information

General information	Category	Number (%)	General information	Category	Number (%)
Sex	male	18 (45.0)	Academic qualification	Master's	26 (65.0)
	feminine	22 (55.0)		female doctor	14 (35.0)
Age (years)	below30	0 (0.0)		Other	0 (00.0)



	30 – 35	4 (10.0)	Specialization	accounting	21 (52.5)
	36 – 40	12 (30.0)		administration	9 (22.5)
	41 – 45	11 (27.5)		economy	6 (15.0)
	more45	13 (32.5)		marketing	1 (2.5)
Years of service (years)	below5	1 (2.5)		Other	3 (7.5)
	5 – 10	5 (12.5)			
	11 – 15	16 (40.0)	Job Title	academic	39(97.5)
	16 – 20	13 (32.5)		Other	1 (2.5)
	more20	5 (12.5)			
the total		40 (100)	the total		40 (100)

Source: Prepared by researchers

Through the table (1) Which shows the distribution of the research sample members according to general information, we can draw several statistically significant results. The table highlights the gender balance among the sample members, with males representing 45% and females 55%. The most represented age group is the 41-45 age group with 32.5%, followed by the 36-40 age group with 30%, while the other age groups came in lower proportions: the 30-35 age group with 10%, less than 30 years with 0%, and more than 45 years with 27.5%. The table reflects the distribution of years of service among the sample members, where the most represented group is the 11–15-year group with 40%, followed by the 16–20-year group with 32.5%, while the other groups came in lower proportions: less than 5 years with 2.5%, the 5–10-year group with 12.5%, and more than 20 years with 12.5%. It is clear that the majority of the sample members hold a master's degree (65.5%), while 35% hold a doctorate degree, and there is no individual holding a bachelor's degree or a higher diploma. Accounting is the most common major among the sample members (52.5%), followed by management (22.5%), then economics (15%), while marketing and other majors were less represented (2.5%) and 7.5% respectively. The table shows that the majority of the sample members are academics in the universities of Sulaymaniyah (97.5%), while the percentage of the "other" category was very small (2.5%).

3.2.2 Tests of validity and reliability of the questionnaire:

A- In summary:

The Cronbach's alpha coefficient was used to ensure the stability of the scale used, to determine the accuracy of the answers of the research sample members. Based on the results of the computer analysis, it became clear that the value of the Cronbach's alpha coefficient is equal to (0.872) At the overall level of the variables (tax procedures, environmental conservation and sustainable development) and through the table (2) Cronbach's alpha value was found to be high.

Table (2) Cronbach's alpha coefficient value.



value (α) Alpha	Number of periods	Variables
0.886	10	Tax procedures
0.800	10	Environmental conservation
0.758	10	sustainable development
0.872	30	the total

Source: Prepared by researchers

It can be noted in the table (2) Cronbach's alpha was used to obtain the reliability result of the participants. As a result, the value of Cronbach's alpha is equal to (0.872), so the questionnaire has high reliability.

B- Detailed validity and reliability tests:

The Cronbach's alpha coefficient was used to ensure the stability of the scale used, to determine the accuracy of the answers of the research sample members (Para et al., 2022). Based on the results of the computer analysis, it became clear that the value of the Cronbach's alpha coefficient is equal to (0.872) At the overall level of the study variables, and through Table No. (2), it is clear that the value of Cronbach's alpha is high and the number of elements is (30) elements, which is positive, as it is possible in some cases that the value is negative due to the presence of negative covariance between the data, and in this case the data must be reviewed and reconsidered, as shown in Table (3).

Table (3) "Cronbach's alpha coefficient value"

Cronbach's Alpha if item deleted	Corrected Item-Total Correlation	Scale Variance if Item Deleted	Scale Mean if Item Deleted	Variables
Tax procedures				
0.888	0.252	87.815	120.6750	X1
0.881	0.452	87.974	120.2250	X2
0.884	0.304	89.395	120.3000	X3
0.881	0.475	86.962	120.2500	X4
0.888	0.096	91,840	120.4250	X5
0.881	0.494	88,500	120.2500	X6
0.886	0.210	90.563	120.5250	X7
0.881	0.455	87.908	120.2000	X8
0.884	0.315	88,820	120.5250	X9
0.881	0.459	86.459	120.5500	X10
Environmental conservation				
0.879	0.520	86.254	120.4500	M1
0.881	0.471	87,640	120.5250	M2



Result	The	Standard	Average	I totally	I agree	neutral	I disagree	I totally	t
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0.882			0.429		88,490			120.3500	M3
0.882			0.416		88,397			120.2500	M4
0.880			0.524		86,969			120.5750	M5
0.880			0.512		86,510			120.5500	M6
0.879			0.546		85,153			120.7750	M7
0.878			0.576		84,092			121.1000	M8
0.880			0.477		86,164			120.7000	M9
0.882			0.426		87,156			120.6500	M10
sustainable development									
0.886			0.230		90,046			120.4250	Y1
0.883			0.372		88,804			120.3750	Y2
0.877			0.609		84,189			120.6250	Y3
0.878			0.561		84,356			120.5500	Y4
0.882			0.383		88,343			120.3750	Y5
0.881			0.454		87,433			120.4500	Y6
0.880			0.526		87,690			120.5500	Y7
0.880			0.522		86,558			120.5750	Y8
0.880			0.517		87,589			120.5250	Y9
0.884			0.286		89,536			120.5500	Y10

Source: Prepared by researchers

3.2.3: Analysis of the opinions and answers of the sample members regarding the research variables
 The answers to the questionnaire items were analyzed using statistical analyses such as frequency distributions, percentages, arithmetic means, standard deviations, and coefficient of variation for each of the research variables, using the program (SPSS24).

After tax procedures

Table (4) Description of variables (tax procedures)



Results	importance of the relative	deviation	Mean	agree				disagree	
				Repetition %	Repetition %	Repetition %	Repetition %	Repetition %	
OK	79.00	1.04	3.95	13 32.50	18 45.00	4 10.00	4 10.00	1 2.50	X1
I totally agree	88.50	0.59	4.43	19 47.50	19 47.50	2 5.00	0 0.00	0 0.00	X2
I totally agree	87.00	0.62	4.35	17 42.50	20 50.00	3 7.50	0 0.00	0 0.00	X3
I totally agree	88.00	0.67	4.40	19 47.50	19 47.50	1 2.50	1 2.50	0 0.00	X4
I totally agree	84.50	0.62	4.23	13 32.50	23 57.50	4 10.00	0 0.00	0 0.00	X5
I totally agree	88.00	0.50	4.40	16 40.00	24 60.00	0 0.00	0 0.00	0 0.00	X6
OK	82.50	0.61	4.13	9 22.50	28 70.00	2 5.00	1 2.50	0 0.00	X7
I totally agree	89.00	0.60	4.45	20 50.00	18 45.00	2 5.00	0 0.00	0 0.00	X8
OK	82.50	0.69	4.13	10 25.00	27 67.50	1 2.50	2 5.00	0 0.00	X9
OK	82.00	0.74	4.10	12 30.00	21 52.50	6 15.00	1 2.50	0 0.00	X10
I totally agree	85.10	0.67	4.26	365		25	10		Total repetition
				91.25		6.25	2.5		Percentage rate



Result	The importance of the relative	Standard deviation	Average	I totally agree	I agree	neutral	I disagree	I totally disagree	The axis
Results	RI	SD	Mean	Repetition %	Repetition %	Repetition %	Repetition %	Repetition %	
I totally agree	84.50	0.66	4.23	13 32.50	24 60.00	2 5.00	1 2.50	0 0.00	Y1
I totally agree	85.50	0.60	4.28	14 35.00	23 57.50	3 7.50	0 0.00	0 0.00	Y2
OK	80.50	0.77	4.03	10 25.00	23 57.50	5 12.50	2 5.00	0 0.00	Y3
OK	81.50	0.89	4.08	13 32.50	20 50.00	5 12.50	1 2.50	1 2.50	Y4
I totally agree	85.50	0.64	4.28	15 37.50	21 52.50	4 10.00	0 0.00	0 0.00	Y5
I totally agree	84.00	0.65	4.20	12 30.00	25 62.50	2 5.00	1 2.50	0 0.00	Y6
OK	82.00	0.55	4.10	8 20.00	28 70.00	4 10.00	0 0.00	0 0.00	Y7
OK	81.50	0.66	4.08	9 22.50	26 65.00	4 10.00	1 2.50	0 0.00	Y8
OK	82.50	0.56	4.13	9 22.50	27 67.50	4 10.00	0 0.00	0 0.00	Y9
OK	82.00	0.63	4.10	10 25.00	24 60.00	6 15.00	0 0.00	0 0.00	Y10
OK	82.95	0.66	4.15	354		39	7		Total repetition
				88.5		9.75	1.75		Percentage rate

Table (4) Description of variables (tax procedures)

Source: Prepared by researchers

Tax procedures: Displaying the results of the research sample individuals' answers regarding the variable (tax procedures): It is clear from Table (4) The total weighted arithmetic mean of the dimension (Tax procedures:) was (4.26) with a standard deviation of (0.67), and the relative



importance was (85.1%). In addition, the total percentage of people who answered (completely agree and agreed) was (91.25%), those who answered (neutral) was (.25%), and finally those who answered (neither agree nor completely disagree) was (2.5%).

After preserving the environment

Table (5) Description of variables (environmental conservation)

Source: Prepared by researchers

Environmental conservation: Displaying the results of the research sample members' answers regarding the variable (environmental preservation): It is clear from Table (5) The total weighted arithmetic mean for the dimension (environmental preservation) was (4.06) with a standard deviation of (0.68), and the relative importance was (81.1%). In addition, the total percentage of people who answered (completely agree and agreed) was (83%), those who answered (neutral) was (.14.25%), and finally those who answered (neither agree nor completely disagree) was (2.75%).

after sustainable development

Table (6) Description of variables (sustainable development)

Source: Prepared by researchers

sustainable development: Displaying the results of the research sample members' answers regarding the variable (sustainable development): It is clear from Table (6) The total weighted arithmetic mean of the dimension (sustainable development) was (4.15) with a standard deviation of (0.66), and the relative importance was (82.95%). In addition, the total percentage of people who answered (completely agree and agreed) was (88.5%), those who answered (neutral) was (.9.75%), and finally those who answered (neither agree nor completely disagree) was (1.75%).

3.2.4

3.2.4.1 Correlation analysis between research variables

In this section, the test results are discussed and the correlation relationships between the research variables and the hypotheses related to them are analyzed, and they will be tested successively according to what is stated in the research methodology.

Table (7) Correlation between variables

Environmental conservation	sustainable development	Variables	
0.66	0.312	Tax procedures	direct
	0.627	Environmental conservation	
	0.726	Environmental conservation -> Tax procedures	indirect
Increase the correlation coefficient indirectly (Indirect) = 0.414			
R Square		Variables	
0.097		Tax procedures -> Sustainable development	direct
0.436		Tax procedures -> Environmental conservation	
0.393		Environmental conservation -> sustainable development	



0.749	Sustainable Development -> Environmental Conservation -> Tax Procedures	indirect
More R Square Indirect = 0.652		

Source: Prepared by researchers

The first hypothesis indicates that “there is a statistically significant correlation between tax measures and environmental conservation.” From the table (7) It is noted that the value of the correlation coefficient between tax procedures and environmental conservation is equal to 0.66, which means that there is a strong direct correlation between tax procedures and environmental conservation. Thus, we can reach the achievement of the first hypothesis, which states that "there is a statistically significant correlation between tax procedures and environmental conservation."

The second hypothesis states that “there is a statistically significant indirect relationship between environmental tax and environmental conservation tax on sustainable development.” Table (7) The value of the correlation coefficient between the environmental tax and the tax to preserve the environment on sustainable development is equal to 0.726, which means that it is statistically significant and that there is a strong correlation between the environmental tax and the tax to preserve the environment on sustainable development. The study is illustrated using the SMART PLS3 program.

Indirect correlation coefficient value (Indirect) equals 0.414, which reinforces the indirect relationship between environmental conservation and tax measures on sustainable development These results indicate the importance of tax measures and environmental conservation as influential factors in achieving sustainable development, while emphasizing the statistical strength of the studied relationships.

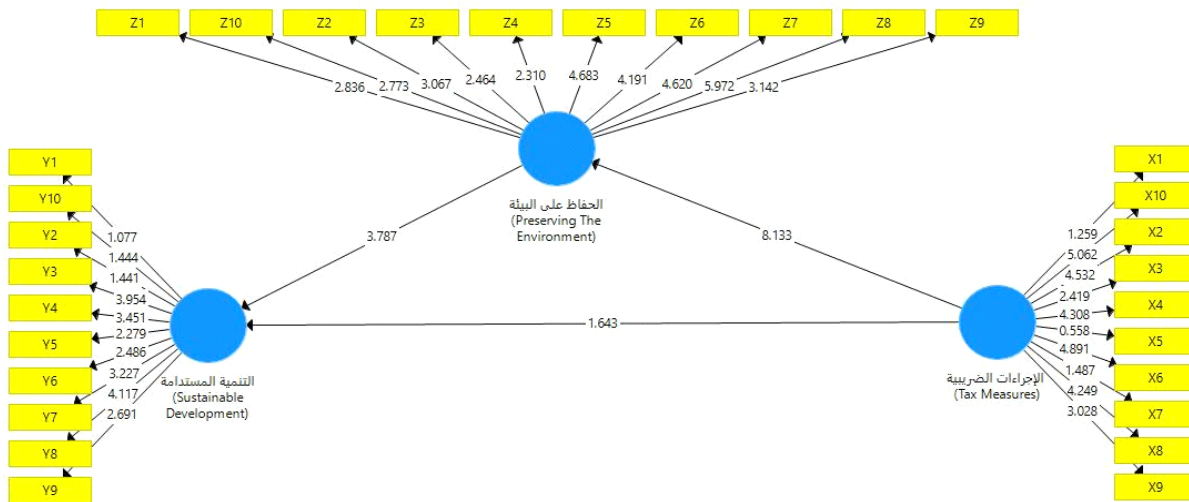
The table above shows the results of the analysis indicating the relationships between the different variables in the study. Looking at the direct relationships, it appears that there is a significant effect of tax measures on environmental conservation, with the correlation coefficient value (The R Square between these two variables is 43.6%. In addition, there is a noticeable effect of environmental conservation on sustainable development, as the value of the correlation coefficient (R Square) between them reaches 39.3%. However, the direct effect of tax measures on sustainable development seems to be insufficient, as the value of the correlation coefficient (R Square) between them is only 9.7%.

As for the indirect relationship between sustainable development and tax measures through environmental conservation as an intervening variable, the results indicate the presence of an important effect, as the value of the correlation coefficient (R Square) in this relationship to 74.9%, indicating that 74.9% of the variance in sustainable development can be explained by the indirect relationship between tax measures and environmental conservation.

Considering the direct relationships, it is noted that there is a weak effect of tax measures on sustainable development, as the value of the correlation coefficient (R Square) between them is only 0.097 (for the direct relationship between tax measures and sustainable development: 9.7%). While in the indirect relationship, the table shows a very significant effect, as the value of the



correlation coefficient (R Square) in this relationship reaches 0.749 (for the indirect relationship between sustainable development and tax measures through environmental conservation as an intervening variable: 74.9%). Therefore, the increase in the value of R Square indirectly (indirect increase) to 0.652 (for the increase in R Square indirectly (indirect increase: 65.2%), which shows the great importance of the indirect relationship between sustainable development and tax measures through environmental conservation as an intervening variable. Through this analysis, we reach the achievement of the second hypothesis, which states that "there is a statistically significant relationship between tax measures and environmental conservation towards green investments and contributes to achieving sustainable development."



Shape1: Shows the evaluation of the structural model paths using the bootstrapping technique.

3.2.4.2 Regression coefficients

The coefficients of the direct and indirect paths show that the relationship of the structural model is statistically significant (Table (8))

Table (8) Evaluate the statistical significance of the direct and indirect relationship paths in the research model.



Hypothesis Decision	P-value	T-Test	Path coefficient	Relationships between variables	Impact type
to reject H_1	0.101	1.643	0.268	Tax procedures -> Sustainable development	direct impact
to reject H_0	0.000	8.133	0.708	Tax procedures -> Environmental conservation	
to reject H_0	0.000	3.787	0.661	Environmental conservation -> sustainable development	
to reject H_0	0.000	3.265	0.466	Sustainable Development -> Environmental Conservation -> Tax Procedures	indirect effect

The table above shows a summary of the path coefficient estimates and values of (T) and (P) values and confidence intervals of (95%) and to estimate the statistical significance of the path coefficients, it is possible to rely on interpreting the (T) values report and comparing them with the free value (T=1.684) at (0.05) or at the error probability (p-value) and comparing them with (0.05), and also it is possible to rely on the confidence interval of the estimated path coefficient since the value of zero is not effective in this area, and accordingly we conclude that the path coefficient has a statistical significance at the 5% level.

1- Direct impact The results confirm that there is no statistically significant direct effect between tax measures and sustainable development, as the value of the calculated T (1.643) is less than the critical value (1.684) at the significance level (0.05). Therefore, it cannot be concluded that there is a direct impact on sustainable development due to tax measures since the results of the P value were greater than 0.05.

2-Direct impact: The results confirm the existence of a direct and statistically significant effect between tax measures and environmental conservation, as the value of the calculated T (8.133) is much greater than the critical value (1.684) at a significance level of (0.05), indicating that there is a statistical relationship between the two variables. The P-value was also less than 0.05, which supports this conclusion. It is noted that the path coefficient (B=0.708) does not include the value of zero, which enhances the acceptance of the alternative hypothesis and the rejection of the null hypothesis. Accordingly, we conclude that there is a direct effect of tax measures on environmental conservation at a significance level of (0.05), where an increase in the level of tax measures by one unit indicates a positive increase in the degrees of enhancing environmental conservation by a value of (0.708) units.

3- Direct impact: The results show a direct and statistically significant effect between environmental conservation and sustainable development, as the value of the calculated T (3.787) is much greater than the critical value (1.684) at a significance level of (0.05), indicating that there is a statistical relationship between the two variables. The P-value was also less than 0.05, which



supports this conclusion. It is noted that the path coefficient ($B=0.661$) does not include the value of zero, which enhances the acceptance of the alternative hypothesis and the rejection of the null hypothesis. Accordingly, we conclude that there is a direct effect of environmental conservation on sustainable development at a significance level of (0.05), where each increase in the level of environmental conservation by one unit indicates a positive increase in the degrees of promoting sustainable development by a value of (0.661) units.

So, through the above analysis of the paragraph (1,2,3) respectively, we arrive at the achievement of the third hypothesis, which states: “There is no direct effect between tax procedures and environmental conservation towards investments and achieving sustainable development.”

4- Indirect effect: The results show that there is an indirect and statistically significant effect between sustainable development and tax measures through environmental conservation as an intervening variable. The value of the calculated T (3.265) is greater than the critical value (1.684) at a significance level of (0.05), indicating the existence of a statistical relationship between the variables. The P-value was also less than 0.05, which supports this conclusion. It is noted that the path coefficient ($B=0.466$) does not include the value of zero, which enhances the acceptance of the alternative hypothesis and the rejection of the null hypothesis. Accordingly, we conclude that there is an indirect effect of tax measures on sustainable development through environmental conservation as an intermediary variable. This means that there is an indirect effect of tax measures on sustainable development through environmental conservation as an intermediary variable, which shows the importance of the role of environmental conservation in mediating the relationship between tax measures and sustainable development. Therefore, by analyzing the fourth paragraph, the indirect effect, we reach the achievement of the fourth hypothesis, which states that "there is a direct effect between tax measures, environmental conservation, and achieving sustainable development."

The analysis and comparison of the results can be summarized in paragraphs (1-4) The first statement shows that there is no direct statistical effect between tax measures and sustainable development, while the second statement shows that there is an indirect and statistically significant effect of these through environmental conservation as an intervening variable. The T-value and P-value in the two statements corroborate these conclusions, with the first statement's calculated T coefficient value being less than the critical value with a P-value greater than 0.05, and the second statement's calculated T coefficient value exceeding the critical value with a P-value less than 0.05. Therefore, we can conclude that tax measures do not directly impact sustainable development, but they indirectly influence environmental conservation, acting as an intervening variable.

4. Conclusions and recommendations

We can say that taxes that support green energy help people use renewable resources and depend less on fossil fuels. Also, putting taxes on harmful pollution encourages the creation and use of green technology and other environmentally friendly options. Putting higher taxes on items that aren't sustainable makes people look for alternatives that are better for the environment. Taxes on



the environment can be used to pay for projects that make the environment better and help with sustainable growth. Changing tax rates can also help business and the environment work together better by making it easier to figure out how much things cost the environment.

Taxes on the environment make it easier for countries to work together to protect the environment and promote sustainable growth.

Following are some possible conclusions that can be drawn from the data: Tax policies that stimulate investment in clean technology and renewable energy should be put into place. These policies should include cutting taxes on these technologies and energy sources, as well as providing tax advantages to firms and individuals. There is a pressing need to establish environmental objectives that are both specific and measurable, such as reducing carbon emissions by a particular percentage within a particular time frame, and to implement levies that assist individuals in accomplishing these objectives. A portion of the funds collected from environmental taxes ought to be allocated to initiatives that educate individuals on the significance of preserving the environment and the ways in which taxes can contribute to the achievement of sustainable development. One of the suggestions that has been made is that effective methods should be created to determine how tax policies influence the environment. This includes determining how these policies affect carbon pollution and the utilisation of natural resources. In conclusion, there is a requirement for improvements in international collaboration, as well as the exchange of information and experience about the implementation of policies regarding environmental taxes. The results will be improved and more comprehensive because of this.

The impact that environmental tax policies have on social justice should be taken into consideration, and it is essential to ensure that these policies do not place an excessive burden on economically disadvantaged groups. Additionally, the utilisation of support and incentives must to be carried out in a manner that fosters justice and long-term sustainability.

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