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FISCAL AND NON-FISCAL ASPECTS OF EXCISE TAXATION OF E-CIGARETTE LIQUIDS AND NOVEL TOBACCO PRODUCTS

Abstract: The aim of the article is to assess the fiscal and non-fiscal aspects of excise taxation of e-cigarette liquids and novel tobacco products in Poland in the years 2020-2024. The fiscal aspects were assessed by comparing excise revenues from e-cigarette liquids and novel tobacco products with revenues from excise duties on traditional tobacco products, as well as with total budget revenues from excise taxes. The non-fiscal aspects were evaluated on the basis of the results of a survey conducted among 102 respondents. The study focused on the role of taxation of these products in achieving the state's health and social policy objectives.

Keywords: e-cigarettes, novel tobacco products, excise tax, fiscal function, non-fiscal function.

Introduction

Excise tax is one of the oldest forms of public levies and currently constitutes one of the main sources of revenue fully financing the state budget. From the very beginning, it has played an important role in both fiscal and economic policy. Initially, it mainly covered luxury goods, but over time it was extended to other products, including passenger cars.

The taxation of e-cigarette liquids and novel tobacco products is a relatively new and dynamically developing phenomenon in the Polish tax system, generating both social and economic consequences. In addition to its obvious fiscal function, increasing emphasis is placed on the regulatory role of this tax. By

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limiting the availability of these products, especially among young people, it is intended to contribute to improving public health and reducing addiction.

Excise taxation of e-cigarette liquids and novel tobacco products is not harmonised across the European Union, leaving Member States free to determine the structure and rates of this tax. Italy was the first EU country to introduce excise taxation on e-cigarette liquids in 2015. The Italian government initially projected budget revenues from this tax at the level of EUR 86 million; however, the aggressive fiscal policy proved unsuccessful, and the actual revenues amounted to only EUR 5.18 million¹.

In Poland, excise taxation of these products has been introduced relatively recently. Initially, from 1 February 2018 to 30 October 2020, a 0% tax rate was applied. This solution was intended to allow businesses to adapt to the new tax obligations. The actual fiscal burden on e-cigarettes and novel tobacco products has been in force in the Polish tax system since 1 October 2020.

The aim of this article is to assess the fiscal and non-fiscal aspects of excise taxation of e-cigarette liquids and novel tobacco products in Poland in the years 2020-2024. The study presents an assessment of fiscal effects in the initial years of the excise duty on these products, as well as an evaluation of its effectiveness in achieving social and public health objectives, based on selected results of a survey conducted in May 2025.

Fiscal and Non-Fiscal Functions of Excise Duty

Excise taxation is associated with two main objectives: a fiscal objective, which involves increasing state budget revenues, and a non-fiscal objective, primarily aimed at reducing the consumption of specific products².

The fiscal function is one of the oldest functions of taxation and consists in the fact that taxes constitute the main source of budget revenues for both the state and local governments, providing them with financial resources necessary to carry out public tasks. Both in the past and at present, the fiscal objective remains the primary reason for imposing taxes. Although every tax performs a fiscal function, not all of them demonstrate the same efficiency in generating revenue³.

Excise tax, like other taxes, primarily fulfils a fiscal function, serving the implementation of the state's budgetary objectives. As a result, excise tax plays

¹ M. Sadzyńska, *Akcyza na płyn do e-papierosów i wyroby nowatorskie*, Doradztwo Podatkowe Biuletyn Instytutu Studiów Podatkowych, nr 2 (294), Warszawa 2021.

² B. Ciupek, *Podatki – finanse – przedsiębiorstwo*, Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach, Katowice 2018.

³ M. Podstawka, A. Parlińska, *Finanse: inwestycje, instrumenty, podmioty, rynki, regulacje*, Wyd. 2., Wydawnictwo Naukowe PWN, Warszawa 2017.

a key role in most European Union countries, constituting an important source of budget revenues⁴. The fiscal function is one of the oldest functions of taxation, and its fundamental importance is reflected in the accumulation of the majority of revenues for both state and local government budgets, thereby directly justifying the need for taxation⁵. Thus, the fiscal role of excise tax is undoubtedly significant.

The fiscal function of excise tax primarily consists in providing the state with stable and necessary financial resources to perform a wide range of public tasks. This tax is imposed on selected goods and services, such as alcohol, tobacco products, fuels, and energy, which are characterised by specific consumption patterns and are relatively easy to monitor at the stage of production or import.

Unlike direct taxes, such as income tax, excise tax is characterised by greater stability and lower sensitivity to economic fluctuations, which makes it an extremely valuable financial instrument for the state⁶.

Due to its structure, excise tax has a direct impact on the market and on consumer behaviour. High excise rates may lead to an increase in the prices of taxed products, which on the one hand may reduce demand for these goods, but on the other hand may encourage producers to seek alternative solutions⁷.

The introduction of taxation in this category is intended not only to increase public revenues but also to influence social and health-related behaviours, particularly in the context of young people and minors⁸.

In recent years, a dynamic increase in the popularity of e-cigarettes and novel tobacco products has been observed. As many of these products were not subject to financial burdens for a long time, they were more affordable than traditional cigarettes. This situation raised concerns among both public institutions and public health communities, which pointed to potential long-term health effects and the risk of addiction among young people. The most important non-fiscal objectives underlying the introduction of this type of taxation include limiting product

⁴ R. Rosiński, *Fiskalne aspekty podatku akcyzowego w krajach Unii Europejskiej*, Zeszyty Naukowe Uniwersytetu Szczecińskiego, nr 864, Finanse, Rynki Finansowe, Ubezpieczenia. Szczecin 2015.

⁵ J. Głuchowski, *Polskie prawo podatkowe*, LexisNexis, Warszawa 2006.

⁶ J. Kulicki, *Podatki pośrednie i bezpośrednie. Leksykon budżetowy*, Sejm Rzeczypospolitej Polskiej, 2024. <https://www.sejm.gov.pl/sejm10.nsf/BASLeksykon.xsp?id=FB0D364ACFD50C18C1257A590041E70C&litera=P>

⁷ A. Drozdek, *Rola podatku akcyzowego w rozwoju gospodarczym – wybrane zagadnienia*, Kwartalnik Prawno-Finansowy, 2019. https://repozytorium.uni.wroc.pl/dlibra/publication/112243/edition/107068/rola-podatku-akcyzowego-w-rozwoju-gospodarczym-wybrane-zagadnienia-drozdek-adam-orcid-0000-0002-0942-3347?utm_source=chatgpt.com

⁸ M. Sadzyńska, *Akcyza na płyn do e-papierosów i wyroby nowatorskie*, Doradztwo Podatkowe Biuletyn Instytutu Studiów Podatkowych, nr 2 (294), Warszawa 2021.

availability for young people, ensuring control over the legal trade in nicotine products, and supporting preventive measures consistent with national and EU health policies.

One of the main non-fiscal objectives of introducing excise tax on e-cigarette liquids and novel tobacco products was to reduce their availability among young people. In recent years, these products have become particularly popular among younger individuals, who perceive them as a cheaper and less harmful alternative to traditional cigarettes. Their relatively low price and ease of access made them widely available, which raised concerns among public health experts and state institutions alike.

Increasing prices through the imposition of excise tax was intended to discourage younger generations from using such products. In the case of young people, this constitutes a tool that may play an important role in addiction prevention policy and public health protection⁹.

However, excise tax performs not only a preventive function but also a market-regulating function. For a long time, e-cigarette liquids and novel tobacco products operated without clear regulatory frameworks, which contributed to the development of the grey market. The lack of control resulted in the emergence of products of illegal origin, often failing to meet basic quality and safety standards. The introduction of mandatory registration of producers, record-keeping obligations, and compliance with specific packaging and labelling standards has enabled more effective monitoring of legal trade. From the consumer's perspective, this may mean greater transparency and certainty regarding product origin, while for the state it constitutes a real tool for combating illegal trade. Moreover, improved control over distribution allows for a faster response to health risks resulting from the presence of undesirable substances in product composition.

Principles of Excise Taxation of E-Cigarette Liquids and Novel Tobacco Products

Excise taxation in Poland is regulated by the Act of 6 December 2008 on excise duty¹⁰. For the purpose of identifying excise goods, the legislator has formulated, inter alia, definitions of disposable and reusable electronic cigarettes, heated tobacco devices, e-cigarette liquid, and novel tobacco products.

⁹ E. Kielak, *Droższe papierosy i e-papierosy. Przyklepano wielką podwyżkę podatku*, 2024. <https://next.gazeta.pl/next/7%2C151003%2C31363072%2Cdrozsze-papierosy-i-e-papierosy-przyklepano-wielka-podwyzke.html>

¹⁰ Act of 6 December 2008 on Excise Duty (consolidated text: Journal of Laws of 2026, item 412).

“Electronic cigarettes”¹¹ are devices that enable the generation and consumption of an aerosol from e-cigarette liquid contained within them, including disposable or reusable devices that require an external power source or control. In turn, “e-cigarette liquid”¹² is defined as a solution intended for use in electronic cigarettes, both with and without nicotine, including a base for such a solution containing glycol or glycerine. A solution is considered intended for use in electronic cigarettes when it is used or, due to its composition and physicochemical properties, may be used in such devices, regardless of the place of sale or offer for sale.

The concept of “heated tobacco devices”¹³ is associated with novel tobacco products and is defined as devices enabling the generation and consumption of an aerosol from novel products without combustion, including those requiring external power or control. The statutory definition of “novel tobacco products” is very broad and includes products that are¹⁴:

- a) a mixture containing tobacco or tobacco substitute;
- b) a mixture containing substances other than those specified in point (a), both with and without nicotine, excluding e-cigarette liquids and products used exclusively for medical purposes;
- c) a mixture referred to in points (a) or (b) and separately containing e-cigarette liquid – which, when heated, deliver an aerosol without combustion.

Legal regulations introduce strict requirements concerning nicotine liquids, including, for example, a maximum nicotine concentration not exceeding 20 mg/ml, and refill containers for nicotine liquids not exceeding a capacity of 10 ml. In the case of disposable e-cigarettes and cartridges, the capacity of the reservoir is limited to 2 ml. Nicotine liquids must be stored exclusively in specially designed containers that meet safety requirements¹⁵.

Excise duty on e-cigarette liquids is calculated by multiplying the total number of millilitres of the liquid by the statutory rate expressed in PLN per millilitre. This means that the greater the volume of liquid, the higher the tax amount. The tax base for this product is its volume expressed in millilitres, and the excise duty rate as of 1 March 2025 amounts to PLN 0.96 per millilitre¹⁶. In the case of production not compliant with legal provisions, the excise rate is doubled. Similarly,

¹¹ Art. 34a and 34b of the Excise Duty Act.

¹² Art. 35 of the Excise Duty Act.

¹³ Art. 34c of the Excise Duty Act.

¹⁴ Art. 36 of the Excise Duty Act.

¹⁵ M. Sadyńska, *Akcyza na płyn do e-papierosów i wyroby nowatorskie*, Doradztwo Podatkowe Biuletyn Instytutu Studiów Podatkowych, nr 2 (294), Warszawa 2021.

¹⁶ W. Kieszkowski, *Podwyżki akcyzy na papierosy i e-papierosy w 2025 r.* Legalis C.H. Beck, 2025. <https://legalis.pl/podwyzki-akcyzy-na-papierosy-i-e-papierosy-w-2025-r/>

if e-cigarette liquid is found outside the excise duty suspension procedure and the tax has not been paid, a doubled excise rate is imposed as a result of tax inspection or proceedings¹⁷.

The tax liability for excise duty on e-cigarette liquids arises, among others, at the moment of production, import, or intra-Community acquisition. However, the self-production of e-liquid by consumers for personal use at home is not considered production for tax purposes¹⁸.

Novel tobacco products are innovative tobacco products that generate an aerosol without combustion. They are characterised by the presence of tobacco or tobacco substitute and, in some cases, e-cigarette liquid. The key classification criterion is the method of production and the composition of the mixture. If a product simultaneously meets the criteria for traditional tobacco products or tobacco substitute, it automatically loses its status as a novel product, which implies different tax and regulatory treatment¹⁹.

Excise duty on novel tobacco products is calculated based on the weight of the product, usually expressed in kilograms. The structure of the tax is based on a two-component mechanism: a fixed component, defined as an amount per unit of weight, and a variable component, expressed as a percentage of the weighted average retail selling price of smoking tobacco. Until 28 February 2025, the excise rate amounted to PLN 377.01 per kilogram plus 32.05% of the weighted average retail price of smoking tobacco. From 1 March to 31 December 2025, the rate amounts to PLN 565.52 per kilogram plus 32.05% of the indicator. Ultimately, from 2027 onwards, the excise rate is expected to reach PLN 780.41 per kilogram plus 32.05% of the weighted average retail price of smoking tobacco²⁰.

The tax liability for novel tobacco products arises at the moment of production, import, or intra-Community acquisition. Excise duty must be calculated and paid upon the first placing of the product on the market, for example at the production facility or at import²¹.

Entities involved in novel tobacco products, as well as those producing, importing, or selling e-cigarette liquids, must be registered in the Central Register of Excise Entities (CRPA) and maintain detailed records of excise operations. This enables tax authorities to monitor the circulation of excise goods and verify tax settlements. Depending on the type of activity, different administrative procedures apply, which may include, among others, advance payment of excise

¹⁷ Art. 99b of the Excise Duty Act.

¹⁸ W. Kieszkowski, *Podwyżki akcyzy na papierosy i e-papierosy w 2025 r.* Legalis C.H. Beck, 2025. <https://legalis.pl/podwyżki-akcyzy-na-papierosy-i-e-papierosy-w-2025-r/>

¹⁹ *Ibid.*

²⁰ Art. 99c of the Excise Duty Act.

²¹ Art. 99c of the Excise Duty Act.

duty, electronic settlement of guarantees (OSOZ2), and marking products with excise stamps to ensure transparency and traceability²².

Excise duty on e-cigarette liquids is calculated based on their volume, whereas in the case of novel tobacco products it is based on their weight. Excise rates consist of both a fixed and a variable component, dependent on the weighted average price of smoking tobacco. Tax liability arises already at the stage of production, import, or intra-Community acquisition, and businesses are required to register and maintain detailed records.

Assessment of the Initial Fiscal Effects of Excise Duty on E-Cigarette Liquids and Novel Tobacco Products in Poland in the Years 2020-2024

The period of analysis covers the years 2020-2024, i.e. from the introduction of excise taxation on e-cigarette liquids and novel tobacco products. The actual taxation of these products came into force on 1 October 2020; therefore, the revenues recorded in 2020 relate only to the last quarter of that year. Figure 1 presents the values of excise revenues from e-cigarette liquids and novel tobacco products in the years 2020-2024.

The presented comparison indicates an upward trend in revenues from the taxation of these excise goods. Revenues from excise duty on e-cigarette liquids increased from PLN 6 million in 2020 to PLN 561.4 million in 2024. Novel tobacco products demonstrate a significantly higher fiscal potential. Revenues from excise duty on these products rose from PLN 9.8 million in 2020 to PLN 1.210 billion in 2024.

²² Ministerstwo Finansów, *Legalizacja wyrobów nowatorskich i płynu do papierosów elektronicznych*, 2021. <https://www.gov.pl/web/finanse/legalizacja-wyrobow-nowatorskich-i-plynu-do-papierosow-elektronicznych>

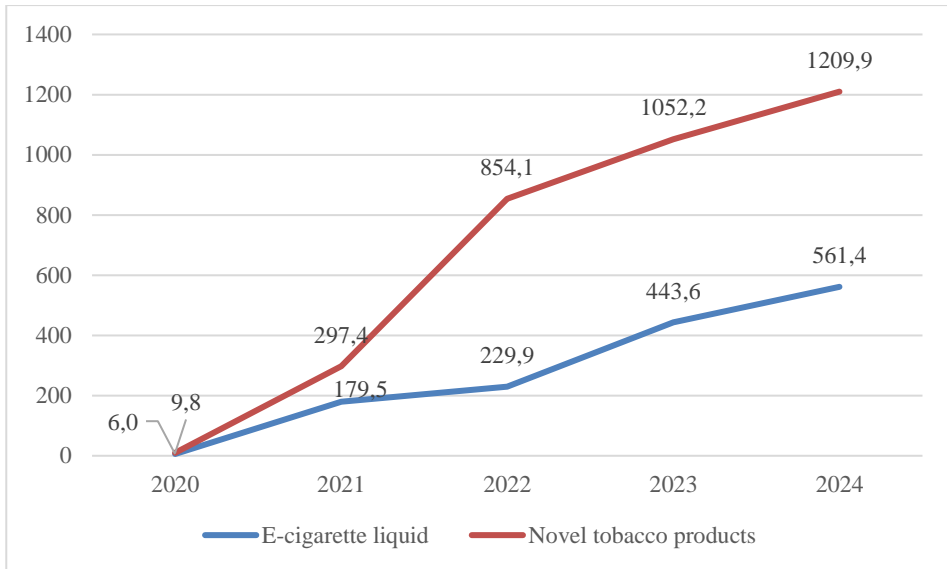


Figure 1. Excise Duty Revenues from E-Cigarette Liquids and Novel Tobacco Products in 2020-2024 (in PLN million)

Source: Own elaboration based on the Supreme Audit Office, *Execution of the State Budget in 2020, 2021, 2022, 2023, and 2024*, Part 77 – *Podatki i inne wpłaty na rzecz budżetu państwa*, <https://www.nik.gov.pl/> (1.09.2025).

In order to assess the fiscal significance of excise duty on e-cigarette liquids and novel tobacco products, a comparison was made between revenues from excise duty on these products and revenues from excise duty on traditional tobacco products, as well as total excise tax revenues. Table 1 presents a comparison of revenues from e-cigarette liquids and novel tobacco products alongside revenues from tobacco products.

The presented data indicate that revenues generated in the years 2020-2024 from e-cigarette liquids and novel tobacco products were relatively insignificant compared to revenues from excise duty on traditional tobacco products. During the same period, revenues from excise duty on tobacco products increased from PLN 21.3 billion in 2020 to PLN 30.2 billion in 2024. This means that revenues from excise duty on e-cigarette liquids accounted for between 0.03% and 1.86% of revenues from tobacco products. In turn, the ratio of revenues from excise duty on novel tobacco products to revenues from excise duty on tobacco products ranged from 0.05% to 4.01%.

Table 1. Comparison of Excise Duty Revenues from E-Cigarette Liquids and Novel Tobacco Products with Revenues from Tobacco Products in 2020-2024 (PLN million, %) – *Podatki i inne wpłaty na rzecz budżetu państwa*, <https://www.nik.gov.pl/> (1.09.2025)

Year	Excise duty on tobacco products	Excise duty on e-cigarette liquid	Share of excise duty on e-cigarette liquids in excise duty on tobacco products	Excise duty on innovative products	Share of excise duty on innovative products in excise duty on tobacco products
2020	21 334.4	6.0	0.03%	9.8	0.05%
2021	23 039.3	179.5	0.78%	297.4	1.29%
2022	25 573.8	229.9	0.90%	854.1	3.34%
2023	27 549.1	443.6	1.61%	1 052.2	3.82%
2024	30 198.80	561.4	1.86%	1 209.9	4.01%

Source: Own elaboration based on data from the Supreme Audit Office, *Execution of the State Budget in 2020-2024*, Part 77, <https://www.nik.gov.pl/> (1.09.2025).

However, it is also important to examine the growth dynamics of revenues from excise duty on e-cigarette liquids and novel tobacco products in comparison with those from tobacco products (Table 2). In the years 2021-2024, the annual growth rate of revenues from excise duty on tobacco products ranged from 108% to 111%. Meanwhile, the growth rate of revenues from excise duty on e-cigarette liquids was significantly higher, ranging from 126.6% to 193%. Even higher growth rates were observed for revenues from excise duty on novel tobacco products, ranging from 115% to 287.2%

Table 2. Comparison of the Growth Dynamics of Excise Duty Revenues from E-Cigarette Liquids and Novel Tobacco Products with Tobacco Products in 2021-2024 (% y/y)

Year	Excise duty on tobacco products	Excise duty on e-cigarette liquids	Excise duty on innovative products
2022/2021	108.0%	128.1%	287.2%
2023/2022	111.0%	193.0%	123.2%
2024/2023	109.6%	126.6%	115.0%

Source: Own elaboration based on data from the Supreme Audit Office, *Execution of the State Budget in 2020-2024*, Part 77, <https://www.nik.gov.pl/> (1.09.2025).

A comparison of revenues from excise duty on e-cigarette liquids and novel tobacco products with total excise tax revenues is presented in Table 3. In the years 2020-2024, total excise tax revenues contributed to the state budget at a level ranging from PLN 71.8 billion to PLN 90.3 billion. Compared to total excise revenues, revenues from excise duty on e-cigarette liquids constituted only a marginal share, ranging from 0.01% to 0.62%. A slightly higher share in relation to total excise revenues was recorded for revenues from excise duty on novel tobacco products, which ranged from 0.01% to 1.34% during the analysed period.

Table 3. Comparison of Excise Duty Revenues from E-Cigarette Liquids and Novel Tobacco Products with Total Excise Revenues in 2020-2024 (PLN million, %)

Year	Total excise duty	Liquid for e-cigarettes	Share of excise duty on e-cigarette liquids in total excise duty	Innovative products	Share of excise duty on innovative products in total excise duty
2020	71 787.3	6.0	0.01%	9.8	0.01%
2021	75 798.0	179.5	0.24%	297.4	0.39%
2022	82 530.0	229.9	0.29%	854.1	1.03%
2023	84 798.80	443.6	0.52%	1 052.2	1.24%
2024	90 315.10	561.4	0.62%	1 209.9	1.34%

Source: Own elaboration based on data from the Supreme Audit Office, *Execution of the State Budget in 2020-2024*, Part 77, <https://www.nik.gov.pl/> (1.09.2025).

Table 4. Comparison of the Growth Dynamics of Excise Duty Revenues from E-Cigarette Liquids and Novel Tobacco Products with Total Excise Revenues in 2021-2024 (% y/y)

Year	Total excise duty	Liquid for e-cigarettes	Innovative products
2022/2021	108.9%	128.1%	287.2%
2023/2022	102.7%	193.0%	123.2%
2024/2023	106.5%	126.6%	115.0%

Source: Own elaboration based on data from the Supreme Audit Office, *Execution of the State Budget in 2020-2024*, Part 77, <https://www.nik.gov.pl/> (1.09.2025).

In the years 2021-2024, the growth rate of total excise tax revenues ranged from 102.7% to 108.9%. Therefore, in this case as well, revenues from excise duty on e-cigarette liquids and novel tobacco products exhibited significantly higher growth dynamics.

Assessment of the Non-Fiscal Function of Excise Duty on E-Cigarette Liquids and Novel Tobacco Products in Light of Survey Results

Research Method and Sample Description

The aim of the study was to examine public opinions on the significance of excise duty in the taxation of e-cigarette liquids and novel tobacco products, as well as the effects resulting from its application, both in fiscal and non-fiscal terms, with a particular focus on health and social aspects.

The data for analysis were collected using a diagnostic survey method with an online questionnaire (Google Forms). The study was conducted between 4 May and 20 May 2025. The questionnaire consisted of closed-ended questions of both factual and opinion-based nature, mainly in the form of single- and multiple-choice questions, as well as statements evaluated on a five-point Likert scale.

A total of 102 respondents from different age groups participated in the study. The sample was purposive and non-exclusionary, with the only criterion for participation being the willingness to complete the questionnaire. The analysis of the collected responses included frequency analysis, chi-square tests of independence to examine statistically significant relationships between qualitative variables, and Cramér's V coefficient to assess the strength of these relationships.

The characteristics of the research sample are presented in Figure 2. The sample was dominated by women (76.5%), most of whom were aged 19-29 (78.4%). In terms of education, the largest group consisted of respondents with secondary education (46.1%). Respondents with technical education (24.5%) and higher education (23.5%) had a comparable share in the sample.

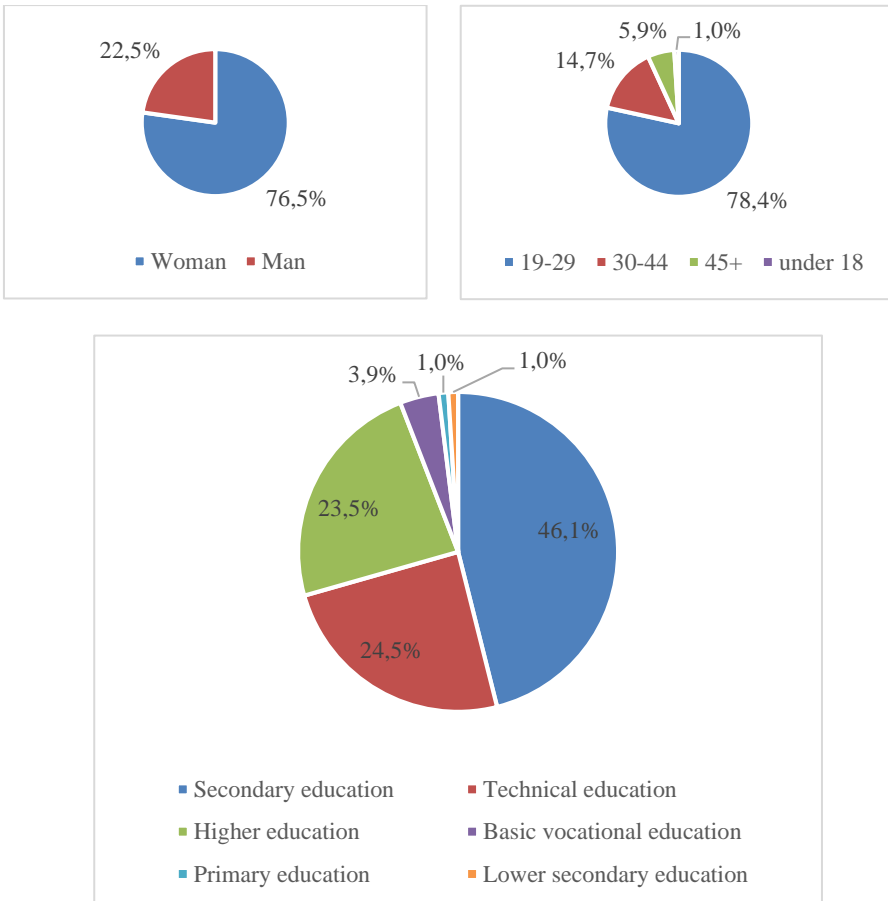


Figure 2. Characteristics of the Research Sample (N = 102)
Source: Author’s own elaboration based on survey results.

Opinions on the Implementation of Excise Duty on E-Cigarette Liquids and Novel Tobacco Products

In order to identify respondents’ experience with e-cigarettes and novel tobacco products, they were asked the following question: “Have you ever used e-cigarettes or novel tobacco products (e.g. IQOS)?” The distribution of responses to this question is presented in Figure 3.

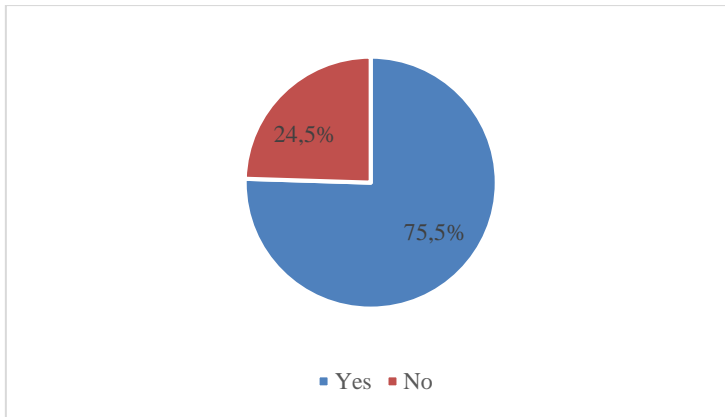


Figure 3. Have you ever used e-cigarettes or novel tobacco products (e.g. IQOS)? (%; N = 102)

Source: Author's own elaboration based on survey results.

The obtained responses indicate that 75.5% of respondents declared having used products such as e-cigarettes or novel tobacco products, whereas 24.5% reported no experience with such products.

When asked about the main reasons for using e-cigarettes and novel tobacco products (Table 5), the largest proportion of respondents indicated “curiosity / willingness to try something new” (53.9%). The second most frequently selected reason was “attractive flavours and aromas” (40.2%). Other responses included “peer pressure / influence of friends” (23.5%), “lower cost compared to traditional cigarettes” (17.6%), “the belief that they are less harmful” (16.7%), and “the intention to reduce or quit smoking traditional cigarettes” (15.7%).

Table 5. What were the main reasons for using e-cigarettes and/or novel tobacco products? (multiple choice; %)

Specification	Response Percentage
Curiosity / desire to try something new	53.9%
Attractive flavors and aromas	40.2%
Peer pressure / influence from friends	23.5%
Lower cost compared to cigarettes	17.6%
Belief that they are less harmful	16.7%
Willingness to reduce or quit smoking traditional cigarettes	15.7%
Additional breaks in work	1.0%
Stress in everyday life	1.0%

Source: Author's own elaboration based on survey results.

The next question concerned respondents' opinions on the role of excise duty on e-cigarette liquids and novel tobacco products in protecting public health (Figure 4).

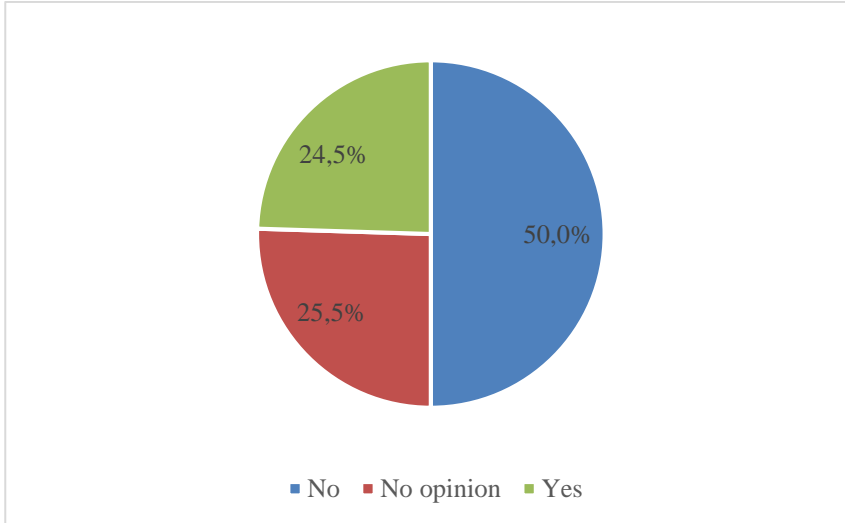


Figure 4. Do you think that excise duty on e-cigarette liquids and novel tobacco products plays an important role in protecting public health? (% , N = 102)

Source: Author's own elaboration based on survey results.

The analysis of the results indicates that half of the respondents do not believe in the health-related rationale for the existence of excise duty on these products. It is also worth noting that 25.5% of respondents expressed no opinion on this issue, which may suggest a lack of knowledge or limited interest in the topic.

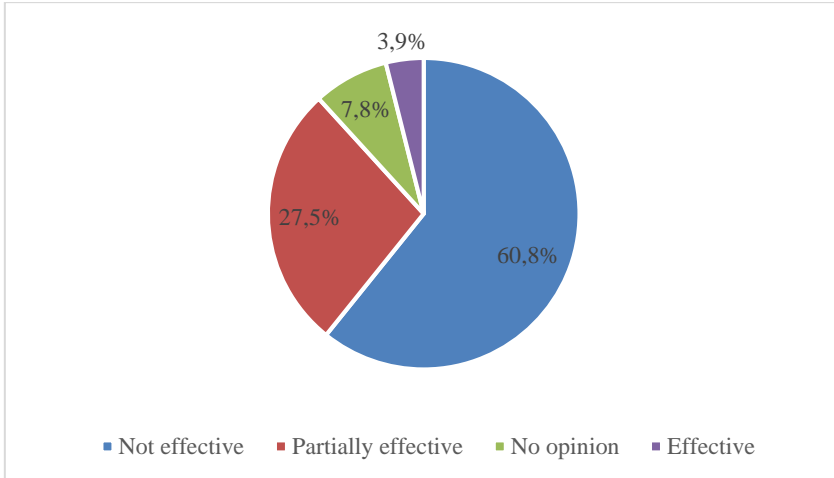
The results of the chi-square test (Table 6) indicate the presence of a statistically significant relationship in respondents' answers with respect to gender ($p < 0.05$). The frequency analysis of responses between women and men suggests that women were significantly more likely than men to agree with the statement that excise duty on e-cigarette liquids and novel tobacco products plays an important role in protecting public health. It should be noted, however, that the strength of the relationship between the examined variables was noticeable but weak (Cramér's $V = 0.2216$).

Table 6. Do you think that excise duty on e-cigarette liquids and novel tobacco products plays an important role in protecting public health? – chi-square test results

Variables	Chi-square	df	p	Vc
Age	5.487525	df=6	p=.48297	Vc=.1640
Gender	10.01685	df=4	p=.04014	Vc=.2216
Education	8.347157	df=10	p=.59497	Vc=.2023

Source: Author's own elaboration based on survey results.

Respondents were then asked about the effectiveness of excise policy concerning e-cigarette liquids and novel tobacco products in achieving health and social objectives. The results indicate that a clear majority of respondents (60.8%) critically assess the effectiveness of the current excise policy in the field of public health (Figure 5). Only 3.9% of respondents consider it effective, which points to a very low level of public trust in the existing fiscal solutions. In turn, 27.5% of respondents perceive certain effects, although only partially effective, which may suggest the need to complement fiscal measures with additional actions. A further 7.8% of respondents expressed no opinion on this issue. Overall, the majority of respondents do not perceive excise duty as an effective tool of health policy, while only a very small proportion recognise its positive effects.

**Figure 5.** Do you think that the current excise policy in Poland concerning e-cigarette liquids and novel tobacco products is effective in achieving health and social objectives? (% , N = 102)

Source: Author's own elaboration based on survey results.

The results of the chi-square test of independence did not indicate any statistically significant relationship between respondents' answers and the groups distinguished by age, gender, and education ($p > 0.05$) (Table 7).

Table 7. Do you consider the current excise tax policy in Poland concerning e-cigarette liquids and novel tobacco products to be effective in achieving public health and social objectives? – results of the chi-square test

Variables	Chi-square	df	p	Vc
Age	11.61969	df=9	p=.23561	Vc=.1949
Gender	2.871762	df=6	p=.82476	Vc=.1186
Education	8.809488	df=15	p=.88727	Vc=.1697

Source: Author's own elaboration based on survey results.

Subsequently, respondents were asked whether, in their opinion, an increase in excise duty on e-cigarette liquids and novel tobacco products would lead to a reduction in their consumption (Figure 6).

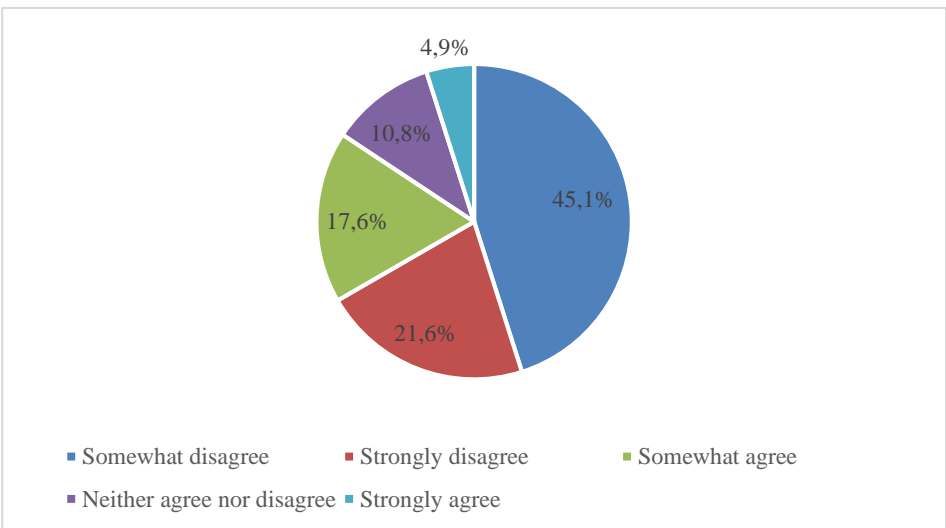


Figure 6. Do you consider that increasing excise taxes on e-cigarette liquids and novel tobacco products will contribute to reducing their consumption (in %, N = 102)?

Source: Author's own elaboration based on survey results.

According to 66.7% of respondents, an increase in excise duty would not contribute to reducing the consumption of these products (responses “strongly disagree” and “somewhat disagree”). In contrast, 22.5% of respondents believe

that higher excise duty would achieve the intended effect (“strongly agree” and “somewhat agree”), while 10.8% were unable to express an opinion on this issue.

In this case as well, the chi-square test procedure did not reveal any statistically significant relationship between the responses of the surveyed group of respondents ($p > 0.05$) (Table 8).

Table 8. Do you consider that increasing excise taxes on e-cigarette liquids and novel tobacco products will contribute to reducing their consumption? – results of the chi-square test

Variables	Chi-square	df	p	Vc
Age	12.82345	df=12	p=.38200	Vc=.2047
Gender	8.723352	df=8	p=.36617	Vc=.2068
Education	23.65744	df=20	p=.25768	Vc=.2408

Source: Author’s own elaboration based on survey results.

The study also asked respondents whether, in their opinion, increases in excise duty on e-cigarette liquids and novel tobacco products may encourage consumers to seek cheaper, illegal alternatives. The majority of respondents (86.3%) believe that higher excise taxes may contribute to the expansion of the grey market and the purchase of products from unverified sources (“strongly agree” and “somewhat agree”). An opposing view was expressed by 5.9% of respondents (“strongly disagree” and “somewhat disagree”), while 7.8% had no opinion on this issue.

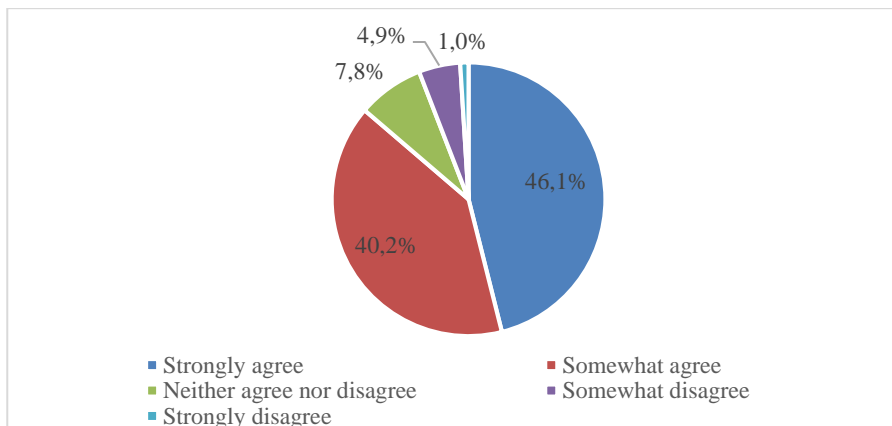


Figure 7. Do you think that increases in excise duty may encourage consumers to seek cheaper, illegal products (% , N = 102)?

Source: Author’s own elaboration based on survey results.

The chi-square test of independence did not reveal any statistically significant relationship between the responses of the surveyed group of respondents ($p > 0.05$) (Table 9).

Table 9. Do you consider that increases in excise taxes may encourage consumers to seek cheaper, illicit products? – results of the chi-square test

Variables	Chi-square	df	p	Vc
Age	5,894691	df=12	p=.92130	Vc=.1388
Gender	5,759473	df=8	p=.67415	Vc=.01680
Education	8,531754	df=20	p=.98772	Vc=.1446

Source: Author's own elaboration based on survey results.

The study also asked respondents which measures, other than increasing excise duty, should be implemented to reduce the use of e-cigarettes and novel tobacco products. This was a multiple-choice question. The distribution of responses is presented in Table 10.

The most frequently indicated measure was increased control over sales, particularly among young people (65.7%). The results suggest a need for stronger social protection of minors against access to these products. The second most commonly indicated measure was education (60.8%), which is regarded as the foundation of long-term improvements in public health awareness. A ban on advertising and promotion received fewer responses (38.2%), yet it still represents a significant share, suggesting that respondents recognise the influence of marketing. Restrictions on places of use were indicated much less frequently (23.5%), while 13.7% of respondents did not see the need for any additional measures.

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Table 10. What other measures, apart from increasing excise taxes, should be implemented to reduce the use of e-cigarettes and novel tobacco products? (multiple choice)

Specification	Response Percentage
Greater control of sales, especially among young people	65.7%
Educating the public about health effects	60.8%
Prohibition of advertising and promotion of these products	38.2%
Introducing additional restrictions on where these products are used	23.5%
No additional action should be taken	13.7%

Source: Author's own elaboration based on survey results.

A particularly valuable and insightful response was provided by one of the respondents, who stated: "Probably none of the above-mentioned actions will be effective. The best solution would be education on health consequences, but it may take several generations before we observe any effects of restrictive educational measures. Such education should be introduced already at the primary school level, where young people in the 21st century most often encounter illegal substances. The source of the problem also lies in parents, role models, and the surrounding environment. All these factors shape the child's mindset; therefore, I would even support educational initiatives aimed at parents to raise their awareness of the current situation regarding these substances."

Based on the obtained results, it can be observed that the strongest public support is given to measures targeting young people, both through stricter sales control and education. Although restrictive policies, such as bans and limitations, are supported, they are not perceived as sufficient on their own. The open-ended response suggests that education is crucial in the long term and that involving parents should be an important element of strategies aimed at reducing substance use.

Conclusion

Excise duty on e-cigarette liquids and novel tobacco products has been introduced relatively recently into the Polish tax system. The initial data on revenues from excise duty on these products, which have contributed to the state budget, appear promising. In the years 2020–2024, revenues from this tax increased very dynamically, and the annual growth rate significantly exceeded that of excise revenues from traditional tobacco products as well as total excise revenues. Nevertheless, it should be noted that the role of this tax in state budget revenues remains marginal. In 2024, the total excise revenues from e-cigarette liquids and novel tobacco products accounted for approximately 2% of total excise tax revenues.

The results of the survey indicate that excise duty does not sufficiently fulfil its non-fiscal function. As many as 50% of respondents believe that excise duty on e-cigarettes and novel tobacco products does not play an important role in protecting public health, while 61% assess the current excise policy in this area as ineffective. Moreover, 66.7% of respondents do not believe that this tax can reduce the consumption of e-cigarettes and novel tobacco products. At the same time, 86% believe that increases in excise duty may lead to greater interest in e-cigarettes and electronic products originating from the grey market.

Given the limited impact of excise duty on reducing the consumption of e-cigarettes and novel tobacco products, there is a need to strengthen the role of the state in educating young people and society about the long-term health consequences of using such products. In this context, it is also important to ensure effective control over the safety and quality of excise goods placed on the market. Producers and manufacturers of these products should comply with specific legal requirements, such as business registration, maintaining appropriate documentation, marking products with excise stamps, and providing public authorities with the information necessary for effective market supervision.

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FISKALNE I POZAFISKALNE ASPEKTY OPODATKOWANIA AKCYZĄ PŁYNÓW DO E-PAPIEROSÓW I WYROBÓW NOWATORSKICH

Zarys treści: Celem artykułu jest ocena fiskalnych i pozafiskalnych aspektów opodatkowania akcyzą płynów do e-papierosów i wyroby nowatorskie w Polsce w latach 2020-2024. Ocenę aspektów fiskalnych przeprowadzono na podstawie porównania dochodów akcyzy na płyny do e-papierosów i wyrobów nowatorskich z dochodami z akcyzy na wyroby tytoniowe, a także łącznymi dochodami budżetowymi z akcyzy. Z kolei aspekty pozafiskalne oceniono na podstawie wyników badania sondażowego przeprowadzonego w grupie 102 respondentów. W badaniu skupiono uwagę znaczenia opodatkowania tych wyrobów do realizacji celów zdrowotnych i społecznych państwa.

Słowa kluczowe: e-papierosy, wyroby nowatorskie, akcyza, funkcja fiskalna, funkcja pozafiskalna.