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**An assessment of public awareness and perceptions regarding alternative tobacco products (ATPs) in Türkiye**

**tepav**

# AN ASSESSMENT OF PUBLIC AWARENESS AND PERCEPTIONS REGARDING ALTERNATIVE TOBACCO PRODUCTS (ATPs) IN TÜRKIYE<sup>1</sup>

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## INTRODUCTION

In Türkiye, the import, sale, and use of alternative tobacco products were prohibited by Presidential Decree No. 2149, dated February 25, 2020. However, the number of individuals using these products has been steadily increasing, highlighting a knowledge gap concerning the reasons for their use, usage rates or patterns, and public perception regarding their harm or efficacy in reducing or quitting smoking.

To address this gap, the Economic Policy Research Foundation of Turkey (TEPAV) conducted a survey study in November-December 2023. The study aimed to illuminate the awareness, attitudes, beliefs, and usage patterns of the adult population in Türkiye regarding alternative tobacco products, particularly focusing on e-cigarettes and heat-not-burn products. The questionnaire covered various aspects, including the level of awareness among the general public, encompassing smokers, non-smokers, and those who have quit smoking these products, as well as the prevalence of usage, usage patterns, reasons for use or non-use, perceived health risks compared to cigarettes, and the effectiveness of alternative tobacco products as smoking cessation aids.

The survey employed the computer-assisted telephone method, covering 12 provinces representing NUTS-1 regions of Türkiye, with a nationally representative sample of 2004 adults. The gender distribution of the respondents closely matched national statistics, while the age distribution is slightly younger, and the educational background of the respondents is slightly more educated compared to national statistics. Socio-economic background is measured using an alternative methodology based on employment status<sup>2</sup>, categorizing individuals as actively employed, previously employed, currently unemployed, or those who have never worked for income. This approach is chosen due to the inflationary environment in Turkey and the inadequacy of traditional income-based measures in explaining social attitudes and behaviors<sup>3</sup>.

Based on the collected survey data, a technical analysis is conducted including processing and tabulating the responses, conducting statistical analysis on the awareness and perception of smoke-free nicotine-containing products among the general survey population, as well as specific groups based on age, gender, education, income, region, and previous tobacco usage. Regression analyses is conducted to estimate the determinants of awareness and usage.

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<sup>2</sup> This methodology was developed by Kalaycıoğlu and Çarkoğlu (2018).

Kalaycıoğlu, E. and Çarkoğlu, A. (2018). *A comparative look at Turkey in Work Orientation* - Sabanci University Research Database. Sabanciuniv.edu

<sup>3</sup> Kalaycıoğlu, E., (October 20, 2022). *Elections and voter preferences in Turkey*, Academy of Sciences [Video]. See: [https://www.youtube.com/watch?v=hEm-RO9gx1k&t=1306s&ab\\_channel=BilimAkademisi](https://www.youtube.com/watch?v=hEm-RO9gx1k&t=1306s&ab_channel=BilimAkademisi)

**The final report is structured as follows:**

Chapter 1 examines awareness of alternative tobacco products (ATP). The first part assesses how knowledge of these products is influenced by factors such as gender, age, education level, employment status, regional factors, and smoking status. Logistic regression analysis is used to evaluate the likelihood of awareness across different demographic groups. The second part presents findings on the channels through which individuals acquire knowledge about these products.

Chapter 2 aims to present usage rates and patterns of alternative tobacco products. The first part conducts a comparative analysis of alternative tobacco products and cigarette smoking rates in Turkey, examining consumption rates and the relationship between alternative tobacco product and cigarette consumption. The second part examines usage prevalence among different demographic groups and includes regression analysis of usage incorporating demographic variables. The third section analyzes usage behaviors based on frequency, comparing daily and occasional users across demographic groups and among cigarette smokers and non-smokers. The fourth section investigates reasons for using alternative tobacco products, flavor preferences among users and the impact of alternative tobacco product usage on quitting traditional cigarettes across demographic groups. The fifth part examines the effect of alternative tobacco product use on cigarette consumption and the final section focuses on dual usage—consuming alternative tobacco products and cigarettes together—examining differences across demographic groups and reasons for dual usage.

Chapter 3 investigates reasons for not using alternative tobacco products and risk perception. It analyzes health risk perception, awareness of risks, concerns about future side effects, and compares overall health risk perception to cigarettes.

**The main findings of the report are summarized below:**

Awareness of alternative tobacco products among respondents stands at 47.5%, with a relatively uniform distribution across the country. This widespread awareness may be influenced by the prevalence of universities in provinces across Türkiye, as younger individuals are more likely to be aware of alternative tobacco products.

Social and economic integration plays a significant role, with young, working, student, and male individuals more likely to hear about alternative tobacco products. The results of the regression analysis show a statistically significant relationship between the likelihood of using alternative tobacco products at least once with gender and age. Specifically, the likelihood of using alternative tobacco products at least once decreases among female respondents compared to males and decreases with advancing age.

Social networks are the primary channel for learning about alternative tobacco products, followed by the internet, especially among students.



The survey found that 6.1% of respondents actively use alternative tobacco products, while 18.9% have used them at some point. This contrasts with the 36.8% who actively smoke traditional cigarettes. Regular usage is even lower at 2.7%, with a higher percentage of regular alternative tobacco product users also being regular cigarette smokers.

There are similar patterns in the rate of use of alternative tobacco products as in the rate of hearing about them, with young, working, student, and male individuals being more likely to use alternative tobacco products. The regression analysis shows a statistically significant relationship between the likelihood of using alternative tobacco products at least once with gender and age. Specifically, the likelihood of using alternative tobacco products at least once decreases among female respondents compared to males and decreases with advancing age.

Usage patterns vary, with 40.2% of alternative tobacco product users consuming them every day. Daily usage is more prevalent among the 25-44 age groups, educated individuals, and those who are employed. Further work is recommended with a larger or more targeted sample to support results regarding usage patterns among different groups.

A majority of alternative tobacco product users report using them to enjoy the flavor or to quit/reduce smoking. Two-thirds of those who used alternative tobacco products to quit smoking are male, while 85.4% were under 44 years of age. Interestingly, more educated and working groups are more likely to use alternative tobacco products for reasons other than quitting smoking, such as flavor. Further work is recommended with a larger or more targeted sample to support results regarding reasons for use among different groups.

Two-thirds of users prefer fruit flavors. However, those using alternative tobacco products to quit smoking tend to prefer tobacco flavors. The proportion of alternative tobacco product users who prefer the tobacco flavor increases among those who stated "my cigarette consumption has decreased/I no longer smoke at all".

Over half of those using alternative tobacco products to quit smoking have successfully reduced their cigarette consumption or quit altogether.

Dual usage of alternative tobacco products and cigarettes is common, with almost two-thirds of alternative tobacco product users reporting using them together with cigarettes. Women, older respondents, and those with lower levels of education are more likely to consume only cigarettes.

The main reasons for using both products together are the pleasant aroma of alternative tobacco products and the desire to quit or reduce smoking cigarettes. In the group that uses both products, the proportion of those who prefer fruit flavors decreases while those who prefer tobacco flavors increases.

The proportion of those who stated that alternative tobacco products are not a substitute for smoking is higher in the group using these products to quit/reduce smoking. The rate

of smoking cessation among those who stated that alternative tobacco product was a substitute for smoking was 54.2%. This rate decreases to 16.7% among those who state that it is not a substitute for cigarettes.

The main reason participants refrain from using alternative tobacco products is their belief that these products are harmful to health. Although the concern about the side effects of alternative tobacco products is especially high among those who never used these products, there is concern across all groups. More than half of the individuals who actively use alternative tobacco products claim to have information about the content of these products.

Perceptions of ATPs' harm compared to cigarettes vary, with those who have used and quit ATPs more likely to believe they are more harmful.

ATPs may be perceived as less addictive than cigarettes, as evidenced by the lower rate of immediate consumption upon waking among ATP users compared to cigarette smokers. Further investigation is warranted to determine if this difference is attributed to the relatively recent adoption of alternative tobacco products among users, and whether they have yet to develop addiction levels comparable to those observed among cigarette smokers.

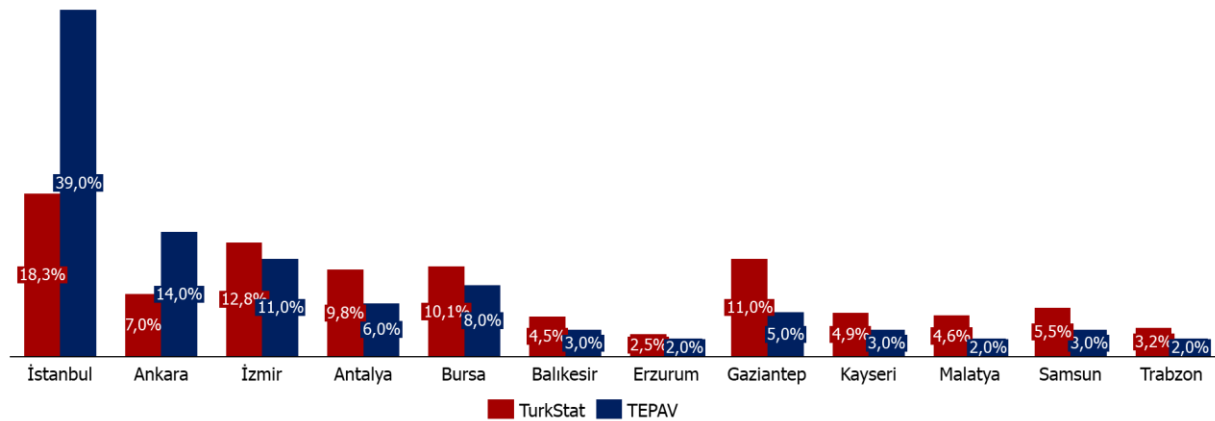
## METHODOLOGY AND PARTICIPANT PROFILE

The survey was conducted in November-December 2023 with 2004 respondents through a computer-assisted telephone survey. Detailed information regarding the sample is presented in the appendices.

### *Regional distribution*

The sample includes 12 provinces, representative of NUTS-1 region of Türkiye. The statistics presented in Figure 1 is a comparison of NUTS-1 regional statistics and TEPAV Survey statistics. Although there is more than one city in each, in Figure 1 each NUTS-1 region is represented by the biggest city in each NUTS-1 region.

Figure 1. Regional distribution of the sample, 2023

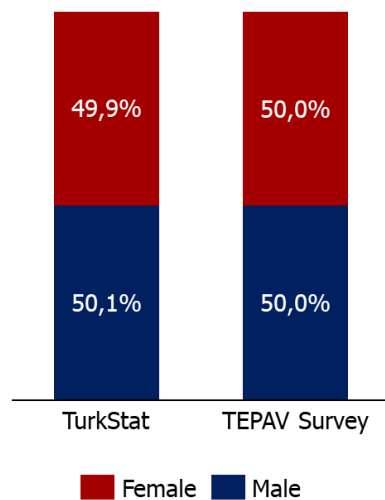


Source: TurkStat (2022), TEPAV Survey, TEPAV Calculations

### Gender distribution

The survey sample almost mirrored national statistics in terms of gender distribution.

Figure 2 Gender distribution, 2023



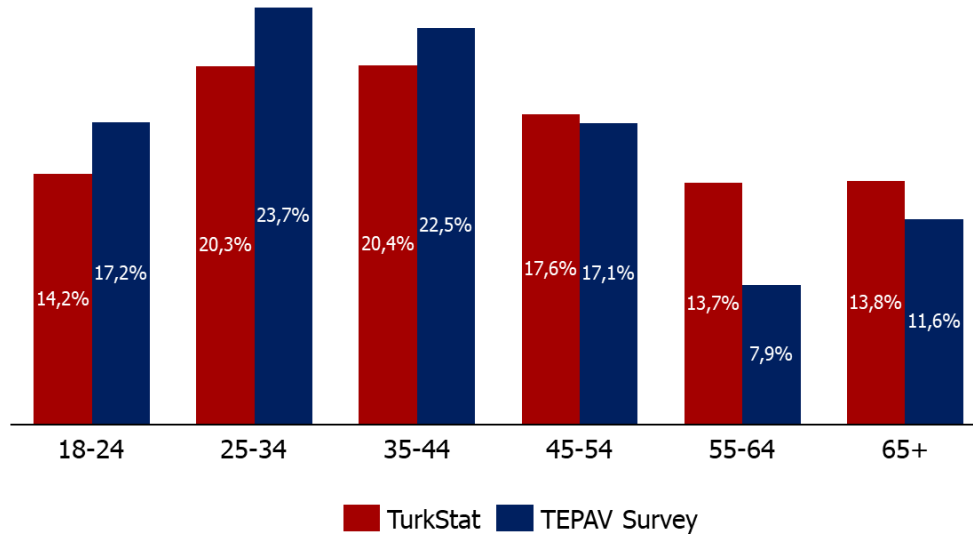
Source: TurkStat (2022), TEPAV Survey, TEPAV Calculations

### Age distribution

In terms of age distribution, the representation of younger age groups is slightly higher than the national figures. The relatively young sample in the TEPAV survey may be attributed to the fact that the survey was conducted by telephone. The highest percentage of respondents falls within the 25-34 age group, accounting for 23.7%. This demographic group is noteworthy as the second-largest in national statistics. The 35-44 age group, which holds the highest weight in national statistics, ranks second in the TEPAV survey.

However, overall, the proportions of the 18-24, 25-34, and 35-44 age groups exceed the national average, while the 45-54, 55-64, and 65+ age groups fall below it.

Figure 3. Age distribution, 2023

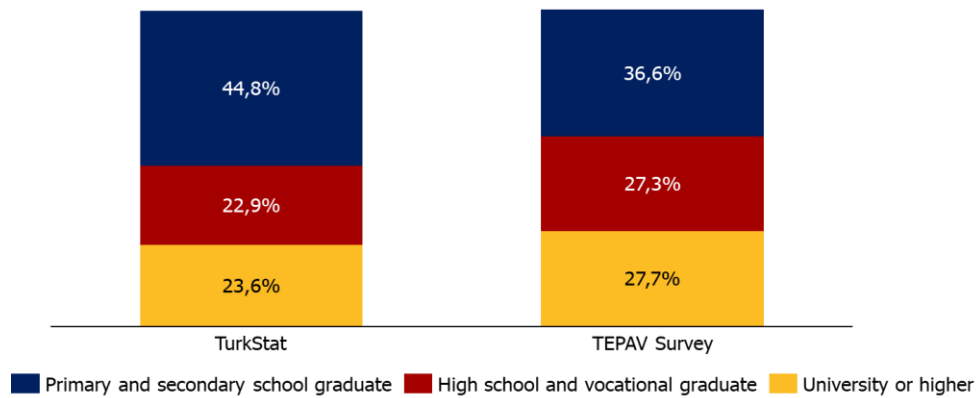


Source: TurkStat (2022), TEPAV Survey, TEPAV Calculations

### *Education background*

Due to the extremely low utilization rate of alternative tobacco products, certain analyses in subsequent sections of this report could not be conducted based on the commonly used educational groups. To ensure the integrity of statistical analyses, education groups were aggregated. This same methodology was applied to national statistics data, as depicted in Figures 1, 2, and 3 facilitating a comparison with the TEPAV survey sample. The figure illustrates that the TEPAV survey sample encompasses a more educated demographic compared to national statistics. Similar to the biased representation in the age distribution, the telephone-conducted nature of the survey may have influenced this pattern.

Figure 4. Educational background, 2023



Source: TurkStat, TEPAV Survey, TEPAV Calculations

### Employment Status

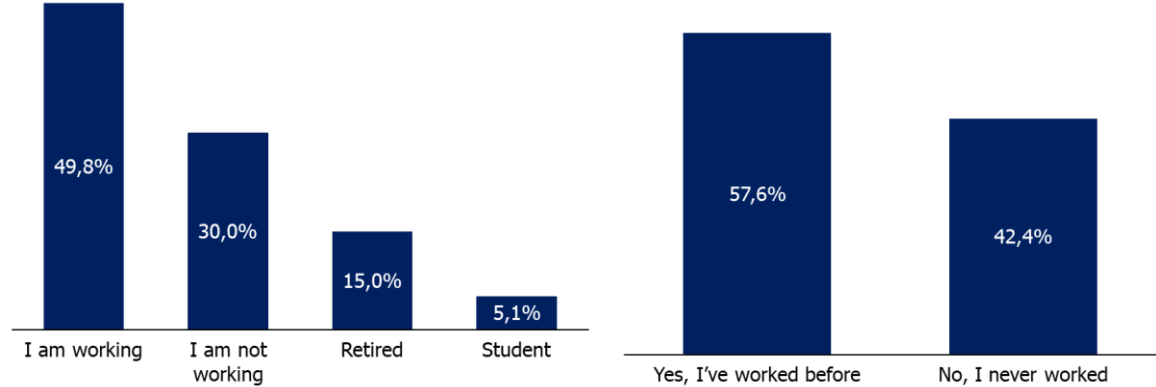
An alternative approach was employed to gauge socio-economic background instead of utilizing income groups, primarily due to the inflationary conditions prevailing in Turkey at the time of the survey. Furthermore, existing literature highlights the limitations of conventional class measures in elucidating differences in social attitudes and behaviors within Turkey, such as voting behavior. Consequently, in this study, the methodology devised by Kalaycıoğlu (2018) is adopted to assess socio-economic disparities. This methodology categorizes individuals based on their employment status<sup>4</sup>.

To measure the employment status of all respondents, they were presented with options including "working," "not working," "retired," and "student." Respondents who solely selected the option "not working" were further queried with a follow-up question: "Have you ever worked in gainful employment before?" This additional question aimed to clarify whether respondents chose the "not working" option due to current unemployment or because they had never been employed.

Within this framework, 49.8% of participants reported being employed, while the proportion of those stating "I am not working" amounted to 30.0% of the total sample. Among this 30%, 57.6% indicated having prior experience in gainful employment, while 42.4% mentioned never having worked in gainful employment. Consequently, the proportion of individuals who have never been gainfully employed stands at 12.6% in the total sample. Furthermore, nearly 90% of this subgroup comprises women.

<sup>4</sup> Kalaycıoğlu, E. and Çarkoğlu, A. (2018). *A comparative look at Turkey in Work Orientation* - Sabanci University Research Database. Sabanciuniv.edu

Figure 5. Employment status of the survey, 2023



Source: TEPAV Survey, TEPAV Calculations

## PART 1 - AWARENESS OF ALTERNATIVE TOBACCO PRODUCTS

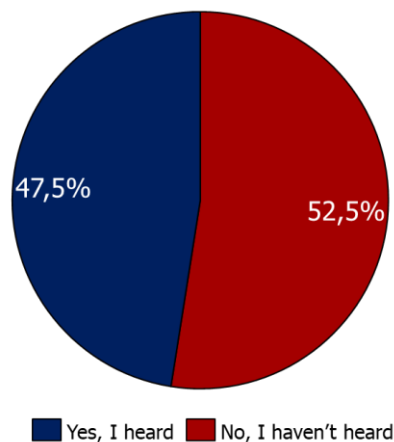
Chapter 1 examines the awareness about alternative tobacco products. The first part of this chapter examines how the knowledge of existence of alternative tobacco products is influenced by various factors including gender, age, educational level, employment status, regional factors, and whether respondents are smokers or nonsmokers of traditional cigarettes. A logistic regression analysis is conducted to assess the likelihood of hearing about alternative tobacco products across different demographic groups.

The second part of the chapter presents findings and analysis regarding the channels through which individuals acquire knowledge about alternative tobacco products.

### 1.1 Awareness of alternative tobacco products

Nearly half of the survey **participants stated that they had heard of alternative tobacco products**. Conversely, 52.2% of the respondents reported that they had not heard of these products.

Figure 6. Prevalence of alternative tobacco products, 2023



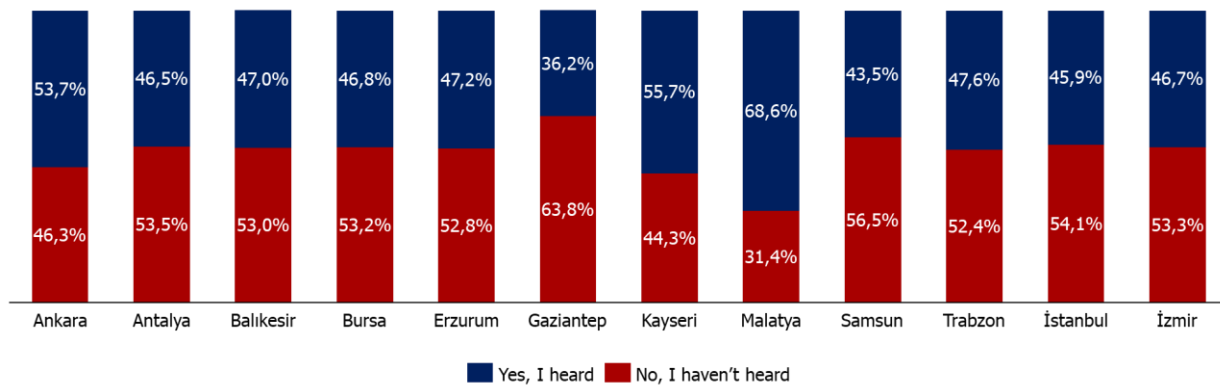
Source: TEPAV Survey, TEPAV Calculations

Note: All respondents were asked the question "Have you ever heard of electronic cigarettes, heated tobacco products (iqos, etc.)?".

Awareness of alternative tobacco products appears to be consistent across regions in the country, except for Malatya and Gaziantep. This uniform distribution of awareness might be attributed to the widespread establishment of universities throughout most provinces. As detailed in subsequent sections of the report, younger generations demonstrate a higher likelihood of being aware of these products. Additionally, social networks emerge

as an effective channel for disseminating information about alternative tobacco products , particularly among the youth and may contribute to the even regional distribution of awareness.

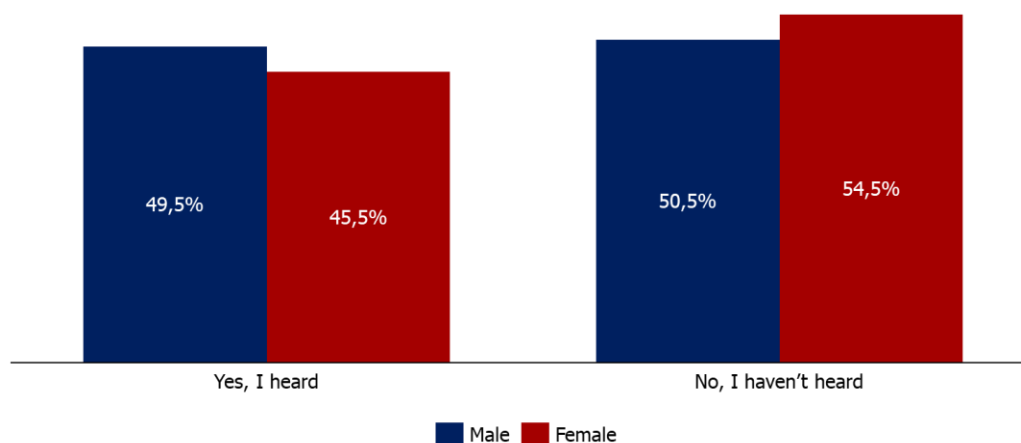
Figure 7. Prevalence of alternative tobacco products, regional distribution, 2023



Source: TEPAV Survey, TEPAV Calculations

**Gender emerges as a significant demographic variable influencing awareness of alternative tobacco products in Turkey, with men being more likely to have knowledge of these products.** Specifically, 49.5% of men reported being aware of alternative tobacco products, compared to 45.5% of women. The significance of these gender-based statistics is further underscored by the fact that 74.8% of participants who were aware of alternative tobacco products indicated that they learned about them through their friends. In Turkey, men exhibit a higher likelihood of participating in social and economic activities compared to women. This gender disparity in social engagement may shed light on why awareness of alternative tobacco products, which is largely disseminated through social networks, may be more prevalent among men.

Figure 8. Prevalence of alternative tobacco products, by gender, 2023



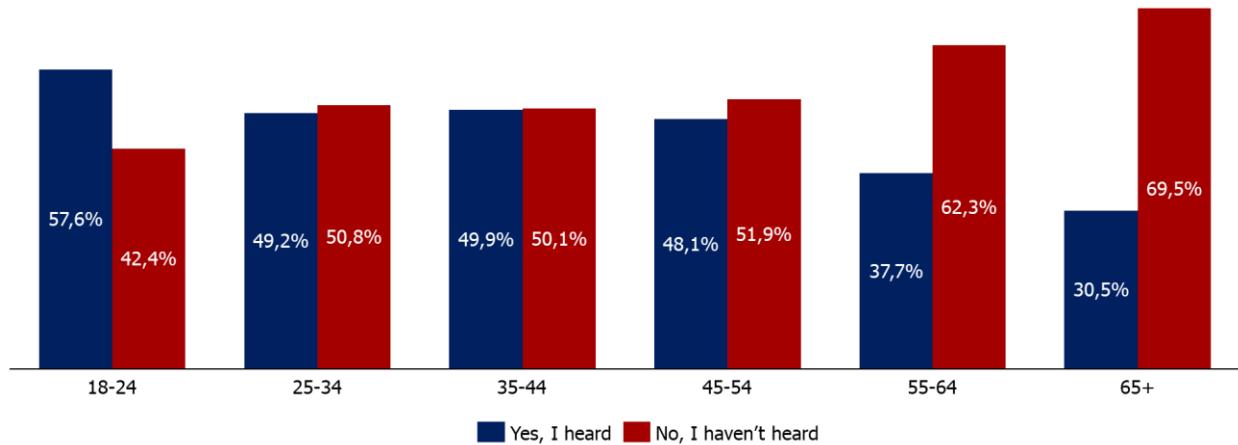
Source: TEPAV Calculations, TEPAV Survey

Notes: Participants were asked "Have you ever heard of electronic cigarettes, heated tobacco products (iqos etc.)?".



**The awareness of alternative tobacco products is notably higher among younger age groups, contrasting with considerably lower awareness among participants aged 55 and over.** Specifically, 57.6% of individuals aged 18-24 reported being aware of alternative tobacco products, whereas only 30.5% of those aged 65 and over indicated awareness of these products.

Figure 9. Prevalence of alternative tobacco products, by age, 2023

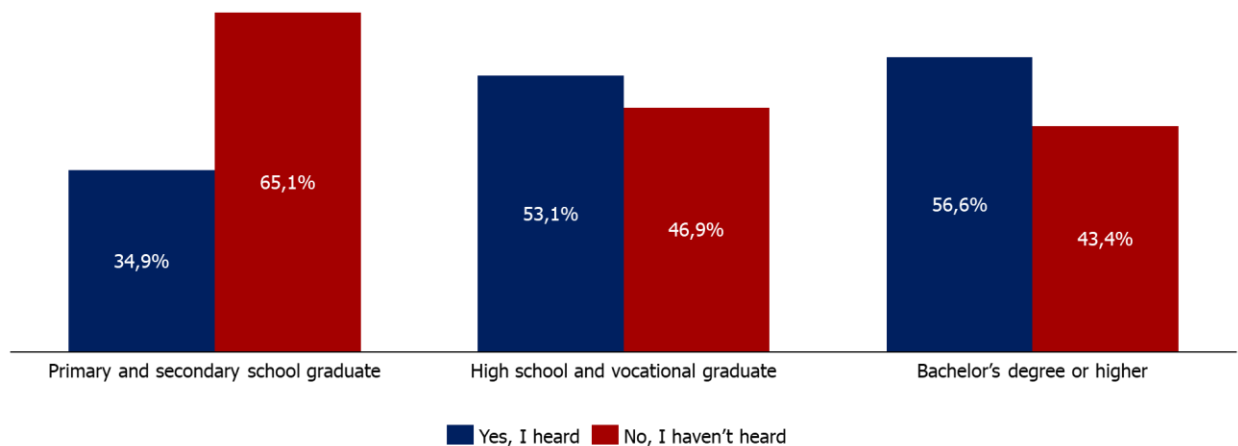


Source: TEPAV Calculations, TEPAV Survey

Note: Respondents were asked "Have you ever heard of electronic cigarettes, heated tobacco products (iqos, etc.)?"

**Awareness of alternative tobacco products correlates with higher levels of educational attainment.** Specifically, while 34.9% of individuals with primary or secondary school education reported being aware of these products, the rate increases to 56.6% among those with a Bachelor's degree or higher education. This increase in awareness among the more educated respondents aligns with the pattern of individuals becoming more acquainted with alternative tobacco products as their participation in social networks rises and is consistent with other observations in the survey.

Figure 10. Rate of awareness of alternative tobacco products, by education level, 2023

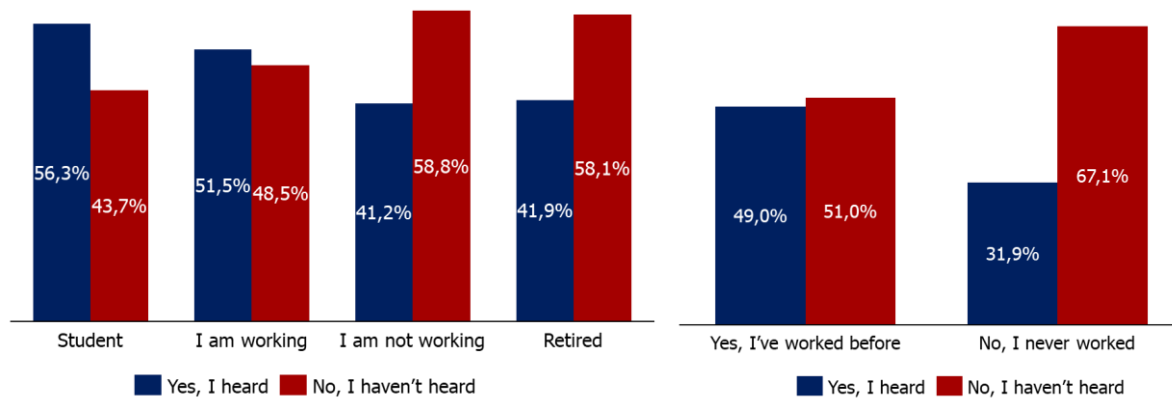


Source: TEPAV Calculations, TEPAV Survey

Note: Respondents were asked "Have you ever heard of electronic cigarettes, heated tobacco products (iqos, etc.)?"

**When examined by employment status, individuals who have never been employed in gainful employment exhibit the lowest rate of awareness of alternative tobacco products.** Specifically, while 51.5% of those who reported being employed at the time of the survey were aware of alternative tobacco products, this rate decreased to 31.9% among those who stated they had never been employed in gainful employment. Participation in the labor force is a significant aspect of engagement in social life and survey findings once again underscore that awareness of these products is disseminated through networks, particularly among those actively engaged in the workforce.

Figure 11. Prevalence of alternative tobacco products, by employment status, 2023



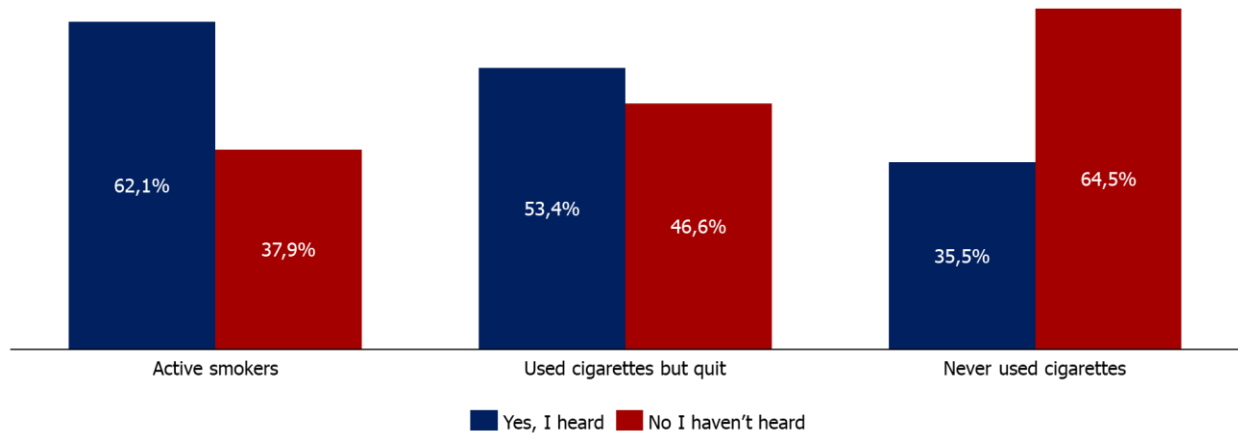
Source: TEPAV Calculations, TEPAV Survey

Note: Respondents were asked "Have you ever heard of electronic cigarettes, heated tobacco products (iqos, etc.)?"

**Awareness of alternative tobacco products is significantly higher among active smokers and considerably lower among individuals who have never smoked.** Specifically, while the prevalence of awareness among active smokers is 62.1%, this rate drops to 35.5% among those who have never smoked.

Figure 12. Prevalence of alternative tobacco products, by cigarette smoking status, 2023

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Source: TEPAV Calculations, TEPAV Survey

Note: Respondents were asked "Have you ever heard of electronic cigarettes, heated tobacco products (iqos, etc.)?"

### 1.1.2 Regression analysis of awareness of alternative tobacco products

A logistic regression model was conducted to assess the likelihood of hearing about alternative tobacco products, incorporating demographic variables such as gender, age, education level, and employment status. The results of the regression analysis are outlined in Figure 13. According to the model, there exists a statistically significant relationship between the likelihood of hearing about alternative tobacco products and age, education level, and employment status. Specifically, the likelihood of hearing about alternative tobacco products diminishes with advancing age, increases with higher levels of education, and increases as individuals transition from the group that has never worked for pay to the group that has previously worked and is currently actively employed.

Figure 13. Results of logit regression analysis

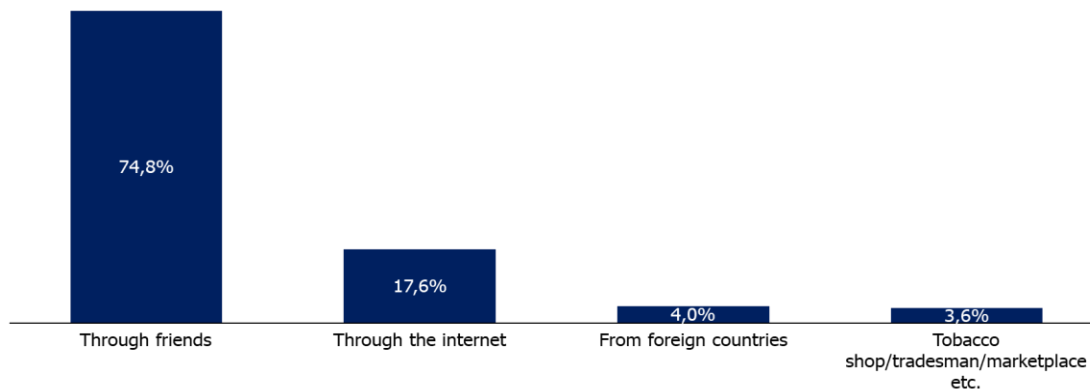
Dependent Variable: awareness					Included observations = 602	
Log likelihood = -383.81075					LR chi2(4) = 52.19	
					Prob > chi2 = 0.0000	
					Pseudo R2 = 0.0637	
awareness	Coefficient	Std. err.	z	P>z	[95% conf. interval]	
gender	0.261832	0.240344	1.09	0.276	-0.20923	0.732897
age	-0.01439	0.006522	-2.21	0.027*	-0.02718	-0.00161
edstatus	0.547867	0.131989	4.15	0*	0.289175	0.80656
work	0.482067	0.181781	2.65	0.008*	0.125783	0.838351
_cons	-0.56586	0.393357	-1.44	0.15	-1.33682	0.205108

Note: \* indicates the statistical significance of the values.

## 1.2 Channels for learning about alternative tobacco products

**The primary source of learning about alternative tobacco products for most individuals is through their friends.** When participants who were aware of alternative tobacco products were queried about where they obtained this information, a substantial majority (74.8%) indicated that they learned about these products through their friends. The internet emerged as the second most prevalent channel, with 17.6% of participants reporting that they learned about alternative tobacco products through online sources.

Figure 14. Channels through which alternative tobacco products are learned, 2023

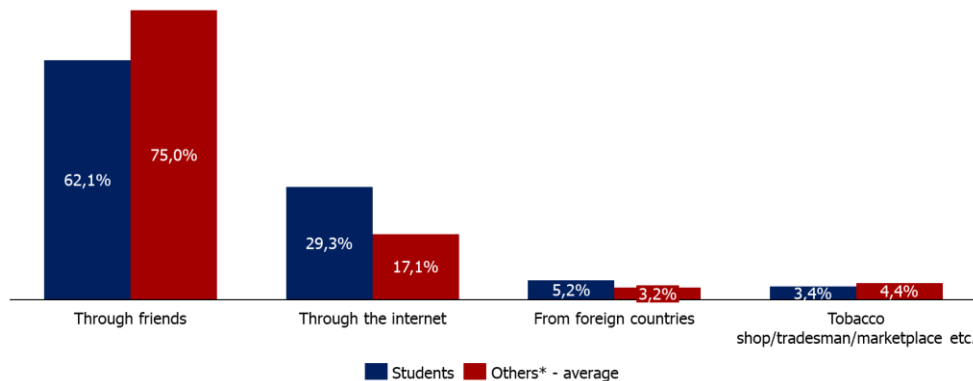


Source: TEPAV Survey, TEPAV Calculations

Notes: Participants were asked the question "Where did you first learn about these products?". Note: This question was asked to 952 respondents who answered "Yes" to the question "Have you ever heard of electronic cigarettes, heated tobacco products (iqos etc.)?".

**The prevalence of learning about alternative tobacco products through the internet increases notably among students compared to other occupational groups.** When analyzing the channels through which individuals learn about alternative tobacco products based on occupational groups, the primary method across all groups remains learning through friends. However, there is a distinctive trend observed among students. While the percentage distribution of learning channels is relatively similar across other occupational groups, students exhibit a different pattern. Specifically, the percentage of individuals learning through friends, which was 75.0% in other occupational groups, decreases to 62.1% among students. Meanwhile, the option of learning through the internet increases from 17.1% to 29.3% among students.

Figure 15. Where alternative tobacco products were learned, comparison by employment status, 2023



Source: TEPAV Survey, TEPAV Calculations Notes: Participants were asked "Where did you first learn about these products?".

## CHAPTER 2 – USAGE RATES AND PATTERNS OF USAGE OF ALTERNATIVE TOBACCO PRODUCTS

I

Chapter 2 aims to present usage rates and patterns of alternative tobacco products.

The first part of the chapter conducts a comparative analysis of alternative tobacco products and cigarette smoking rates in Türkiye, examining cigarette and alternative tobacco product consumption rates and the relationship between the consumption of alternative tobacco products and cigarette consumption.

The second part examines the prevalence of usage of alternative tobacco products among different demographic groups such as gender, age, education level, and employment status. It also includes a regression analysis of usage of alternative tobacco products incorporating demographic variables.

The third section analyzes the usage behaviors of individuals who reported using alternative tobacco products based on the frequency of use, distinguishing between daily users and occasional users, and comparing usage behavior among cigarette smokers and non-smokers and across demographic groups of age, gender, education, and employment status.

The fourth section investigates reasons for using alternative tobacco products as reported by respondents who have used these products at least once. As a majority of respondents report that they use alternative tobacco products because they enjoy the flavor or to quit/reduce

smoking, the section also delves into flavor preferences according to frequency of usage and the impact of alternative tobacco product usage on quitting traditional cigarettes. Respondents who use alternative tobacco products to quit traditional cigarettes are profiled and compared based on education, gender, age, and employment status.

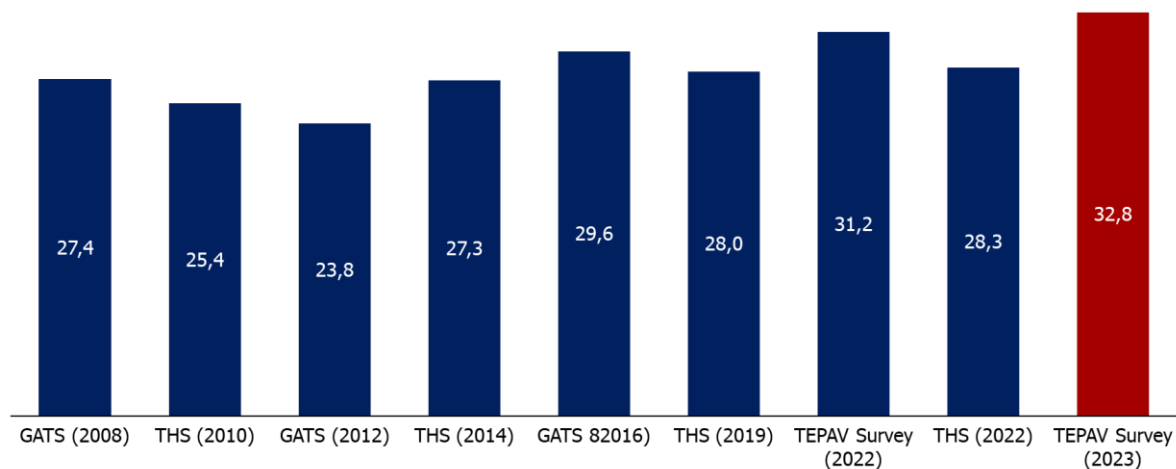
The fifth part examines the effect of alternative tobacco product use on cigarette consumption, assessing whether it has decreased, led to quitting smoking altogether, increased or stayed the same, and analyzes the impact on different demographic groups.

The final section focuses on dual usage—consuming alternative tobacco products and cigarettes together—examining differences across demographic groups. It explores reasons for dual usage such as the flavor of alternative tobacco products and the desire to quit or reduce smoking, preferences of flavors for dual users, and respondents' views on alternative tobacco products as a substitute for smoking, as well as which respondents quit smoking with alternative tobacco products.

## 2.1 A comparative analysis of alternative tobacco products and cigarette smoking rates in Turkey

Although tobacco use rates in Turkey have fluctuated over the years, they reached their highest recorded rate in 2023, according to the TEPAV-2023 survey, at 32.8%.

Figure 16. Proportion of daily/regular smokers in Turkey, 2023



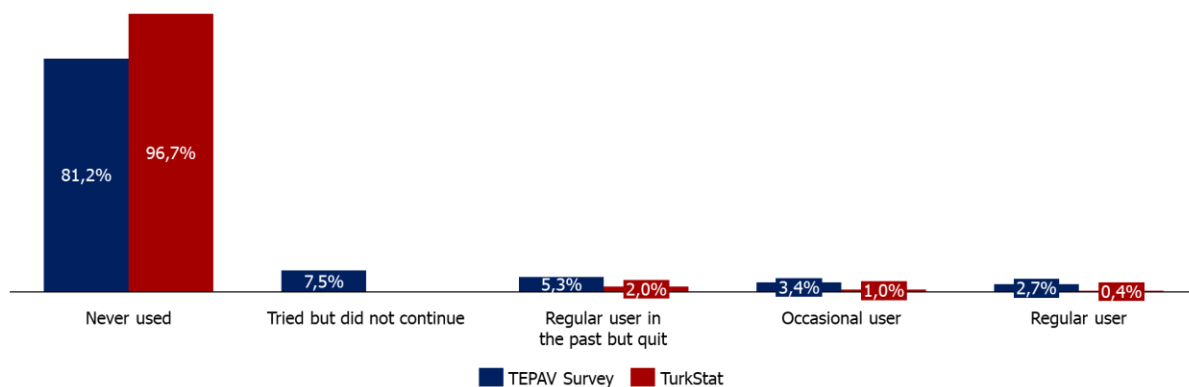
Source: CDC, WHO, TurkStat, TEPAV Survey, TEPAV Calculations

Note: Respondents were asked "Do you smoke or have you smoked in the past?" and 657 respondents answered "Yes, I smoke regularly".

According to both the TEPAV survey and national statistics, the majority of the population have never used alternative tobacco products. Specifically, based on the TEPAV survey, 81.2% of respondents reported that they have never used alternative tobacco products, while only 6.1% of individuals stated that they actively use alternative tobacco products, where active users are defined to include both occasional and regular users.

Figure 17 compares national statistics regarding the use of alternative tobacco products with the findings from the TEPAV survey. It reveals that the rates of alternative tobacco product use are higher in the TEPAV survey results compared to national statistics, which may be attributed to the fact that the sample in the TEPAV survey is both younger, and with a higher level of education.

Figure 17. Use of alternative tobacco products, comparison of TurkStat and TEPAV Survey, 2023



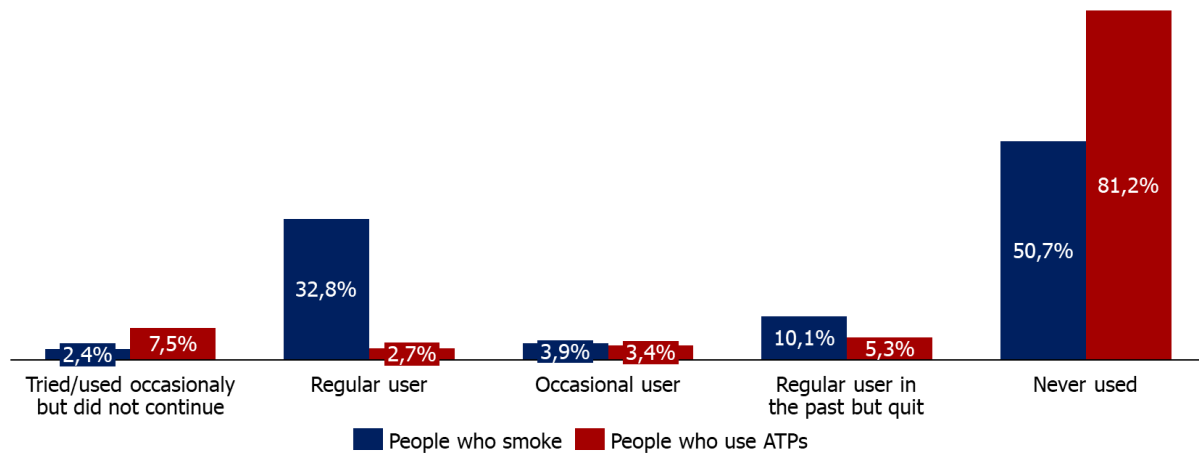
Source: TurkStat, TEPAV Survey, TEPAV Calculations

Notes: Participants were asked the question "Do you use electronic cigarettes or heated tobacco products (iqos etc.)?".

Note: This question was asked to 952 respondents who answered "Yes" to the question "Have you ever heard of electronic cigarettes or heated tobacco products (iqos etc.)?".

Figure 18 provides a comparison of statistics obtained from the TEPAV survey regarding the use of cigarettes and alternative tobacco products. When both regular and occasional smokers are considered collectively, the prevalence of cigarette smoking is 36.7%. In contrast, the rate of individuals using alternative tobacco products is 6.1%.

Figure 18. Comparison of cigarette and alternative tobacco product users by use status, 2023

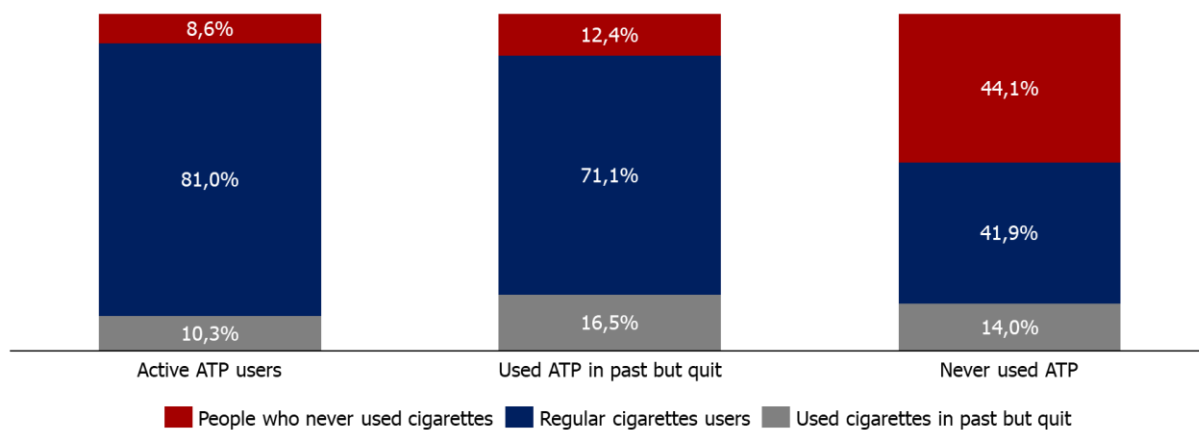


Source: TEPAV Survey, TEPAV Calculations

Note: Smokers were grouped from the answers given by the participants to the question "Do you smoke or have you smoked in the past?" asked to the whole sample. In addition, ATP users were grouped from the answers given by the participants to the question "Do you use electronic cigarettes or heated tobacco products (iqos etc.)?" asked to 952 people who answered "Yes" to the question "Have you heard of electronic cigarettes, heated tobacco products (iqos etc.)?".

There exists a notable relationship between the consumption of alternative tobacco products and cigarette consumption. Individuals were categorized based on their use of alternative tobacco products, and their cigarette consumption habits. According to the analysis depicted in Figure 19, among individuals who actively consume alternative tobacco products, the proportion of those who have never used cigarettes was 8.6%. In contrast, this rate increased to 44.1% among those who have never used alternative tobacco products.

Figure 19. Proportion of cigarette smoking status by individuals' use of alternative tobacco products, 2023



Source: TEPAV Survey, TEPAV Calculations



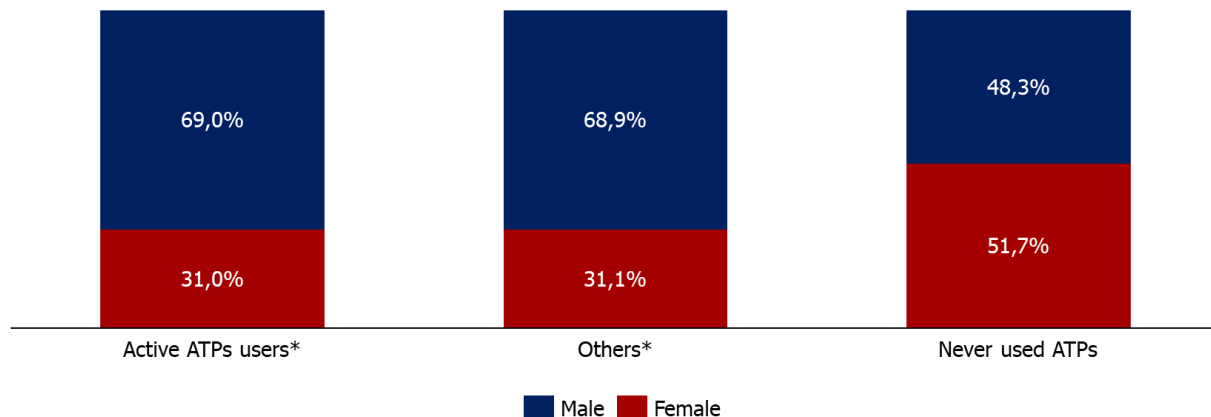
Note: Active users include those who say "Yes, I use it regularly", "Yes, I use it occasionally, although not regularly".

## 2.2 Alternative tobacco product usage according to demographic variables

In Chapter 1 of the report, it was highlighted that men are more inclined to hear about alternative tobacco products compared to women. Additionally, it was mentioned that the primary channel for the dissemination of the knowledge these products is through friends, and that men tend to have more access to social networks compared to women. These effects are also reflected in the usage of alternative tobacco products, with men being more likely to use or have used ATP compared to women.

Specifically, among individuals who actively use alternative tobacco products, the proportion of men is 69.0% and this rate decreases to 48.3% among those who have never used alternative tobacco products. Additionally, there is a significant increase in the proportion of women among the group that reported never having used alternative tobacco products.

Figure 20. Use of alternative tobacco products, by gender, 2023

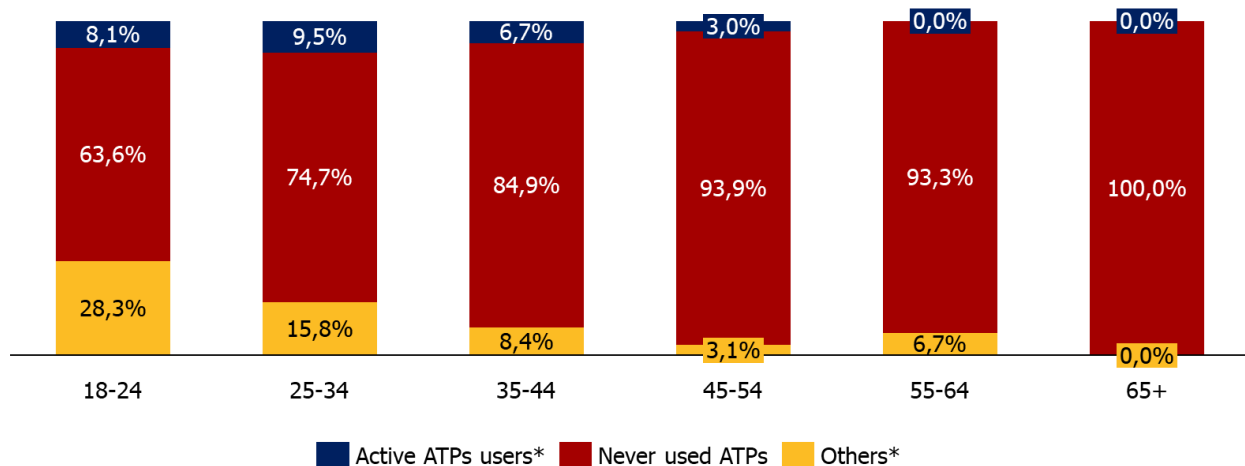


Source: TEPAV Survey, TEPAV Calculations

Notes: Participants were asked "Do you use electronic cigarettes or heated tobacco products (iqos etc.)?". Note: Active users include those who said "Yes, I use them regularly", "Yes, I use them occasionally, although not regularly". The Other category includes those who said "Yes, I have tried/occasionally used but did not continue", "Yes, I have used regularly in the past and quit".

**The usage of alternative tobacco products is more prevalent among younger age groups, while it is nearly non-existent among older age groups.** The age group with the highest active usage of alternative tobacco products is the 25-34 age group, with a rate of 9.5%. Following closely is the 18-24 age group, with a rate of 8.1%. This rate declines in older age groups, and there are no active users reported in the 55-64 and 65+ age groups.

Figure 21. Use of alternative tobacco products, by age, 2023



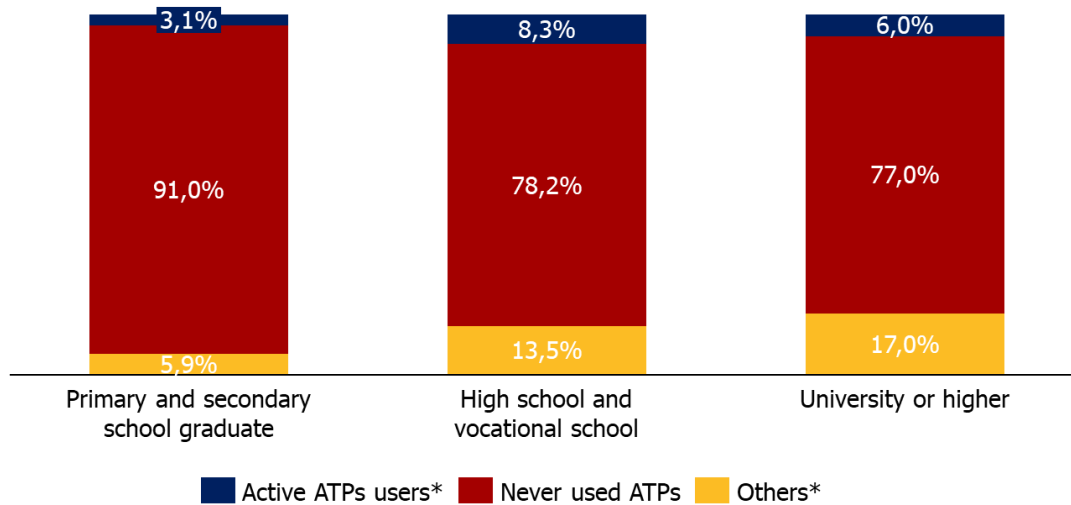
Source: TEPAV Survey, TEPAV Calculations

Notes: Participants were asked "Do you use electronic cigarettes or heated tobacco products (iqos etc.)?". Note: The Other category includes those who said "Yes, I have tried/occasionally used but did not continue", "Yes, I have used regularly in the past and quit". Active users include those who said "Yes, I use it regularly", "Yes, I use it occasionally, although not regularly". Note: 71 participants over 65 years of age stated that they had heard of alternative tobacco products, but none of them had used these products.

**As the level of education increases, the proportion of individuals who have used alternative tobacco products at least once ("active ATP users" and "Others\*") also increases.** When analyzed by education level, the group with the highest proportion of active alternative tobacco product users is high school or secondary school graduates, with a rate of 8.3%. This rate is 3.1% among primary or secondary school graduates and 6.0% among those with a bachelor's degree or higher.

When considering both active alternative tobacco product users and those who have used and quit alternative tobacco products, the rate of usage among those with a bachelor's degree or higher is 23 % compared to 21.8 % among high school or secondary school graduates and just 9% among primary or secondary school graduates.

Figure 22. Use of alternative tobacco products, by education level, 2023



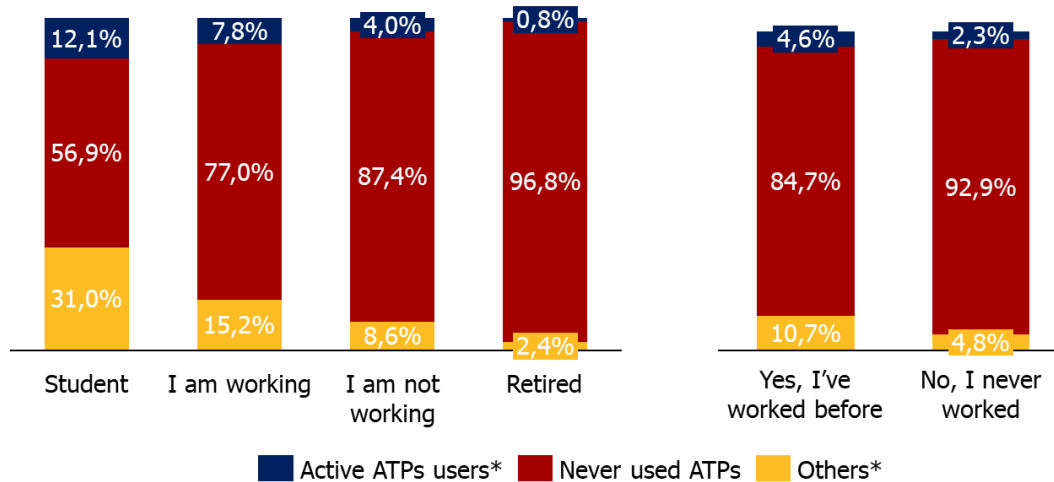
Source: TEPAV Survey, TEPAV Calculations

Notes: Participants were asked "Do you use electronic cigarettes or heated tobacco products (iqos etc.)?". Note: The Other category includes those who said "Yes, I have tried/occasionally used but did not continue", "Yes, I have used regularly in the past and quit". Active users include those who said "Yes, I use it regularly", "Yes, I use it occasionally, although not regularly".

**The likelihood of using alternative tobacco products tends to increase as individuals enter the labor force.** Among those who stated that they were actively working at the time of the survey, the rate of alternative tobacco product usage was 7.8%. This rate decreased to 4.6% among individuals who had previously worked but were not currently actively working. Among individuals who had never worked for pay throughout their lives, the rate of alternative tobacco product usage was just 2.3%.

A similar pattern is observed among individuals who have used and quit alternative tobacco products. Among actively working individuals, the rate of those who used and quit these products is 15.2%. Conversely, this rate decreases to 4.8% among those who state that they have never worked.

Figure 23. Use of alternative tobacco products, by employment status, 2023



Source: TEPAV Survey, TEPAV Calculations

Note: Participants were asked "Do you use electronic cigarettes or heated tobacco products (iqos etc.)?".  
 Note: The Other category includes those who said "Yes, I have tried/occasionally used but did not continue", "Yes, I have used regularly in the past and quit". Active users include those who said "Yes, I use it regularly", "Yes, I use it occasionally, although not regularly".

### 2.2.1 Regression analysis of usage of alternative tobacco products

A regression analysis was conducted to assess the likelihood of usage of alternative tobacco products, incorporating demographic variables such as gender, age, education level, and employment status. The results of the regression analysis outlined in Figure 24 show a statistically significant relationship between the likelihood of usage of alternative tobacco products at least once with gender and age. Specifically, the likelihood of using alternative tobacco products at least once decreases among female respondents compared to males and decreases with advancing age.

Figure 24. Results of logit regression analysis

Dependent Variable: usage	Included observations = 952				
Log likelihood = -396.34801	LR chi2(4) = 127.60				
	Prob > chi2 = 0.0000				
	Pseudo R2 = 0.1386				
usage	Coefficient	Std. err.	z	P>z	[95% conf. interval]
gender	-0.90233	0.190981	-4.72	0	-1.80466
age	-0.07145	0.009164	-7.8	0	-0.1429
edstatus	0.156052	0.127483	1.22	0.221	-.0938096 .4059139

empstatus	-0.01252	0.111303	-0.11	0.91	-0.2306726	.2056274
_cons	1.187714	0.379989	3.13	0.002	1.932479	.4429494

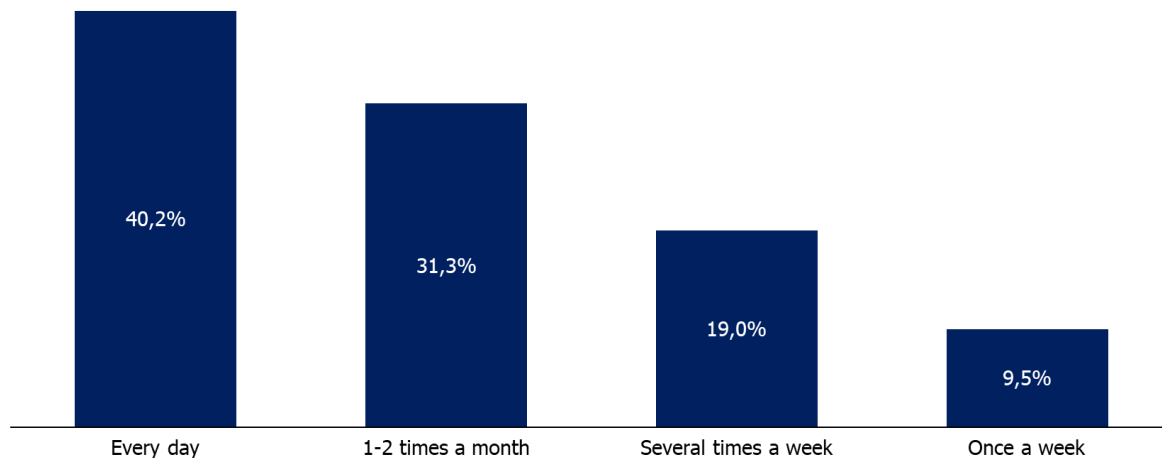
Note: \* indicates the statistical significance of the values.

### 2.3. Patterns of use of alternative tobacco products

In this section, the usage behaviors of individuals who reported using alternative tobacco products were examined. These individuals were categorized based on the frequency of use, distinguishing between daily users and occasional users. Subsequently, these two groups were compared according to traditional cigarette consumption, age, gender, education, and employment status.

**Among the participants who have used or are actively using alternative tobacco products, 40.2% reported using or having used these products every day.** Additionally, those who stated that they use these products only 1-2 days a month constitute the second most frequent group, accounting for 31.3% of the participants. Finally, individuals who reported using these products once a week constitute the least frequent group, with a rate of 9.5%.

Figure 25. Frequency of use of alternative tobacco products, 2023



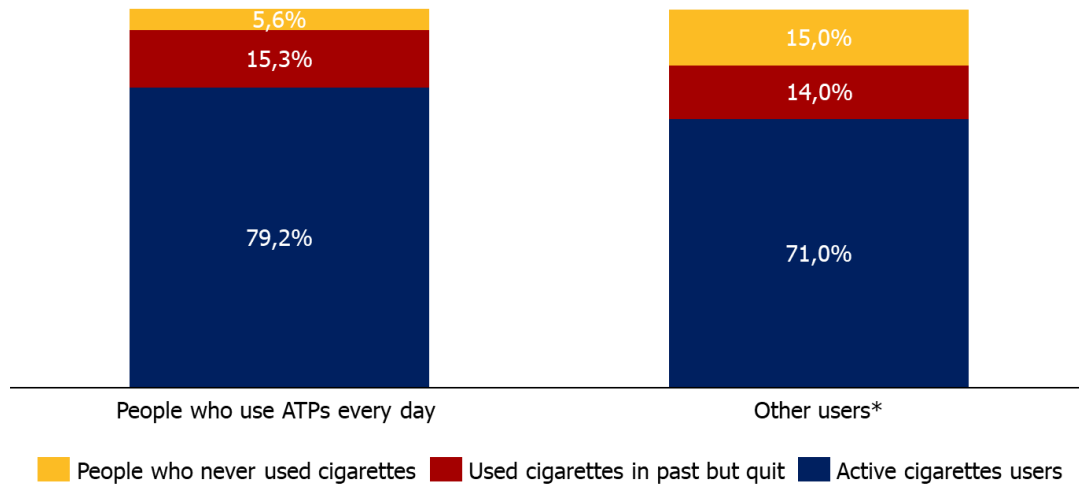
Source: TEPAV Survey, TEPAV Calculations

Note: Participants were asked "How often have you used or do you use these products?".

Note: This question was asked to everyone who answered the question "Do you use electronic cigarettes or heated tobacco products (iqos, etc.)?" except "No, I have never used them".

**There is a correlation between the frequency of use of alternative tobacco products and smoking cigarettes.** Among those who use alternative tobacco products every day, the proportion of active cigarette smokers is 79.2%. This proportion of active cigarette smokers dropped to 71% among those who use alternative tobacco products irregularly ("Others").

Figure 26. Cigarette smoking status by frequency of use of alternative tobacco products, 2023



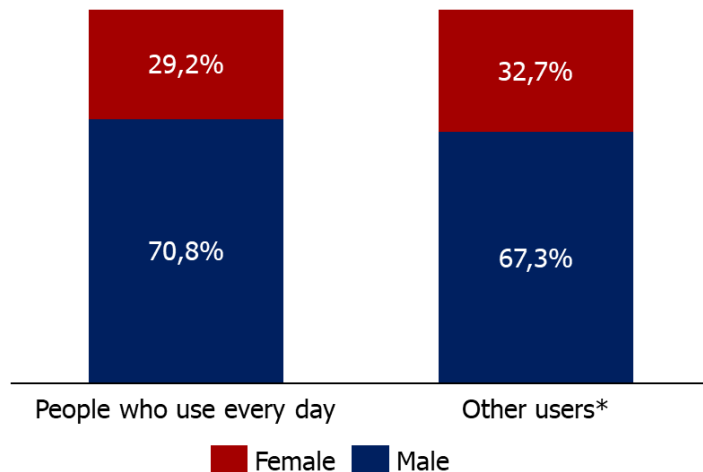
Source: TEPAV Survey, TEPAV Calculations

Note: Participants were asked "How often have you used or do you use these products?".

Note: Other users include respondents who answered "Once a week", "Several times a week" and "1-2 times a month" to the question "How often have you used or do you use these products?".

**The frequency of use of alternative tobacco products by gender does not exhibit a significant variation.** Among daily users, the proportion of men is 70.8%, while this rate slightly decreases to 67.3% among irregular users. Conversely, there is a slight increase in the proportion of women: among daily users, 29.2% are women, and this proportion rises to 32.7% among irregular users.

Figure 27. Gender distribution by frequency of use of alternative tobacco products, 2023

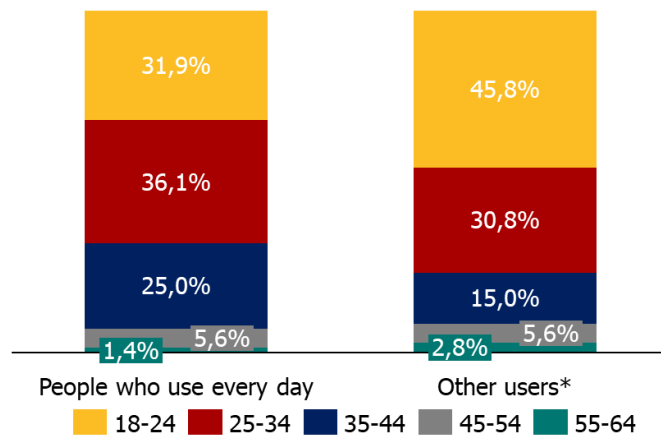


Source: TEPAV Survey, TEPAV Calculations Notes: Participants were asked "How often have you used or do you use these products?". Note: Other users include respondents who answered "Once a week",

"Several times a week" and "1-2 times a month" to the question "How often have you used or do you use these products?".

**The group that reported using alternative tobacco products every day tends to be relatively older compared to the group that is irregular users.** Among those who use alternative tobacco products every day, the 25-34 age group has the highest rate, accounting for 36.1%. Conversely, among irregular users, the highest rate is observed in the 18-24 age group, at 45.8%. Notably, the 18-24 and 25-34 age groups constitute the first two groups with the highest rates in both groups (daily and irregular users). Given that the use of alternative tobacco products is more intense among younger age groups, the statistics reflected in Figure 28 are consistent with the general usage patterns.

Figure 28. Age distribution by frequency of use of alternative tobacco products, 2023



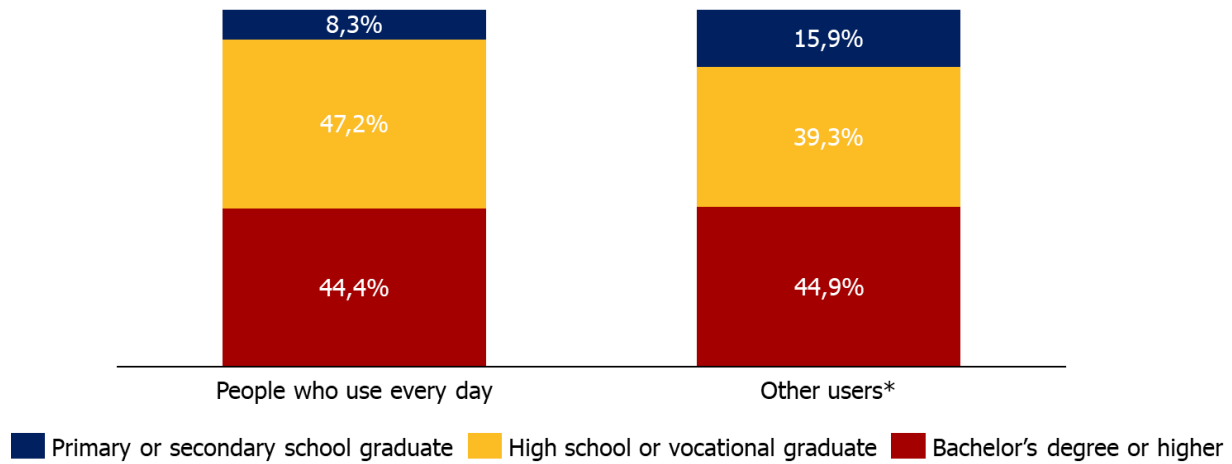
Source: TEPAV Survey, TEPAV Calculations

Note: Participants were asked "How often have you used or do you use these products?".

Note: Other users include respondents who answered "Once a week", "Several times a week" and "1-2 times a month" to the question "How often have you used or do you use these products?".

**Individuals with lower education levels are less likely to use alternative tobacco products every day.** Among those who stated that they use alternative tobacco products every day, 91.6% were users with a higher level of education (high school or university graduates), while primary or secondary school graduates account for only 8.3% of those who use alternative tobacco products every day. In contrast, the proportion of primary or secondary school graduates rises to 15.9% among irregular users. Additionally, the proportion of high school or vocational school graduates among those who use alternative tobacco products every day is 47.2%, which decreases to 39.3% among irregular users.

Figure 29. Distribution of educational attainment by frequency of use of alternative tobacco products, 2023



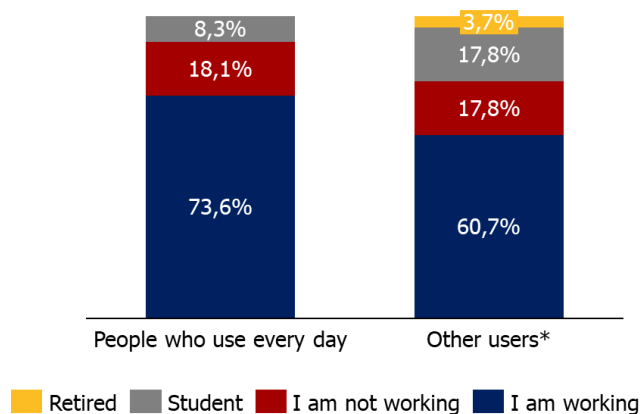
Source: TEPAV Survey, TEPAV Calculations

Note: Participants were asked "How often have you used or do you use these products?".

Note: Other users include respondents who answered "Once a week", "Several times a week" and "1-2 times a month" to the question "How often have you used or do you use these products?".

**Actively working individuals are more likely to use alternative tobacco products every day.** Among those who use alternative tobacco products every day, the proportion of working respondents was 73.6%, which decreases to 60.7% among irregular users. Therefore, it appears that individuals who actively participate in business life are more inclined to consume these products every day. This may be attributed to cigarette smoking regulations prohibiting their use indoors.

Figure 30. Distribution of employment status by frequency of use of alternative tobacco products, 2023



Source: TEPAV Survey, TEPAV Calculations Notes: Participants were asked "How often have you used or do you use these products?". Note: Other users include respondents who answered "Once a week", "Several times a week" and "1-2 times a month" to the question "How often have you used or do you use these products?".

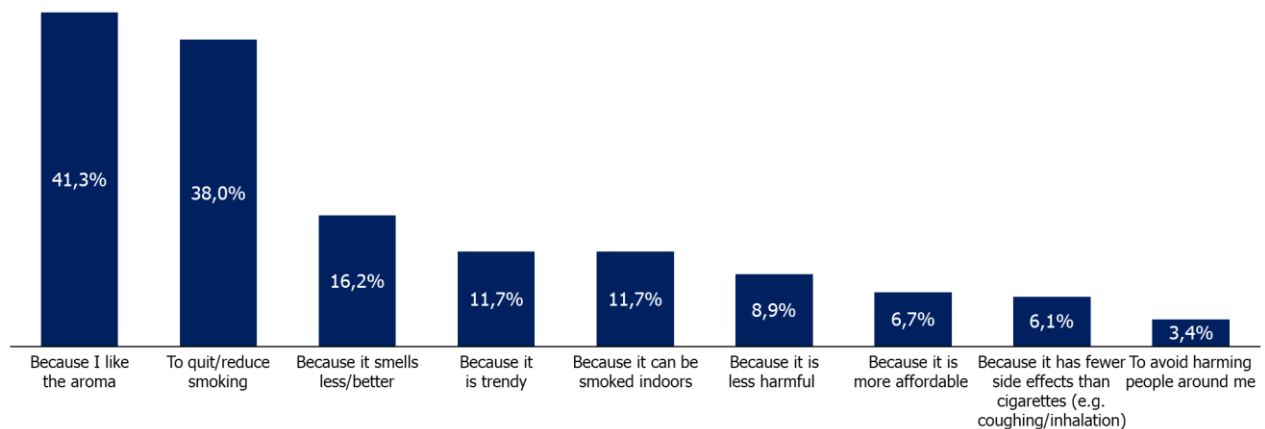


## 2.4. Reasons for using alternative tobacco products

In this section, the reasons for the use of alternative tobacco products by participants who have used these products at least once are analyzed. As a majority of respondents report that they use alternative tobacco products because they enjoy the flavor or to quit/reduce smoking, the section also delves into flavor preferences according to frequency of usage and the impact of ATP usage on quitting traditional cigarettes. Respondents who use ATPs to quit traditional cigarettes are profiled and compared based on education, gender, age, and employment status.

**A majority of respondents report that they use/have used alternative tobacco products because they enjoy the flavor or to quit/reduce smoking.** 41.3% of the participants stated that they used these products because they liked the flavor while 38.0% said they used it to quit/reduce smoking.

Figure 31. Reasons for using alternative tobacco products, 2023



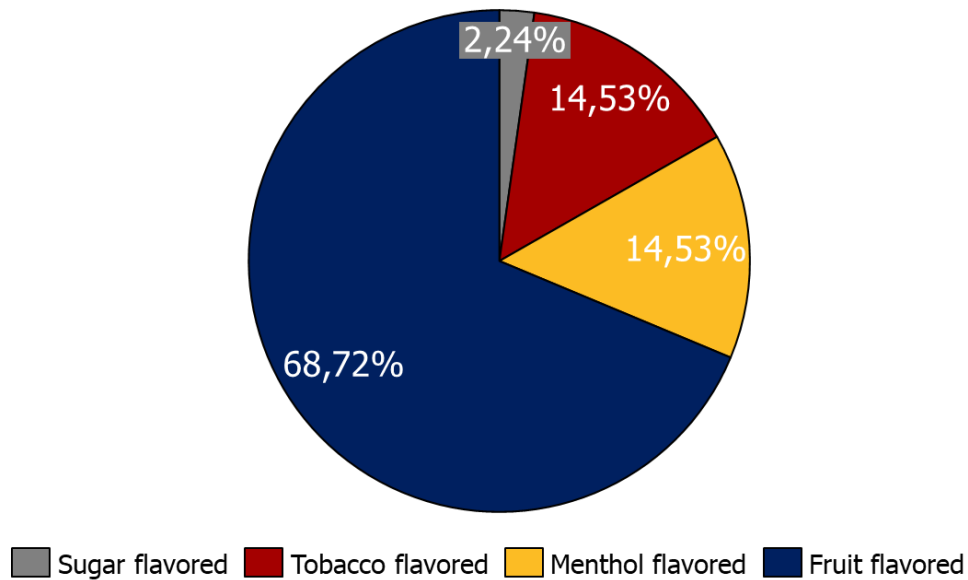
Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked the question "What was or is your reason for using electronic cigarettes/heated tobacco products?".

Note: This question was asked with more than one answer option. In addition, this question was asked to respondents other than those who answered "Never used" to the question "Do you use electronic cigarettes or heated tobacco products (iqos etc.)?".

**More than two-thirds (68.7%) of alternative tobacco product users stated that they prefer fruit flavors.** The rate of those who stated that they use alternative tobacco products with menthol and tobacco flavors was 14.5%. Sugar flavor was the least preferred flavor type, with a rate of 2.2%.

Figure 32. Flavor preference of alternative tobacco product users, 2023

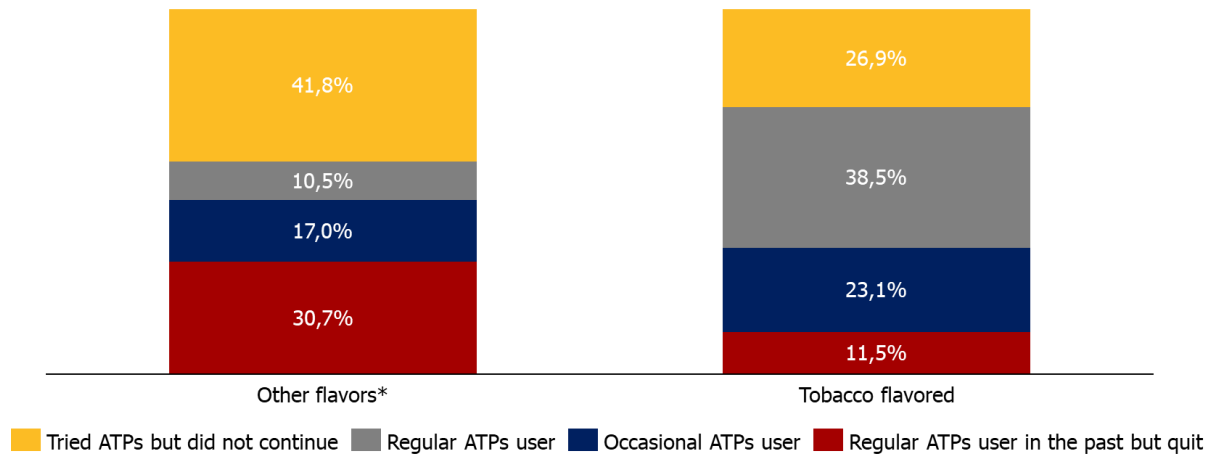


Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked "Which flavor type do you prefer?".

**Among respondents who prefer tobacco-flavored products, the percentage of regular users was highest, possibly indicating that regular users may be using alternative tobacco products as a substitute for cigarettes.** Figure 33 illustrates individuals who use alternative tobacco products in two categories: those who prefer tobacco-flavored products and those who use alternative tobacco products with other flavors. The percentage of regular users was 38.5% among those who prefer tobacco-flavored products, whereas among those who prefer flavors other than tobacco flavor, the rate of those who regularly use these products was just 10.5%.

Figure 33. Alternative tobacco product use by flavor preference, 2023



Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked "Which type of flavor do you prefer?".

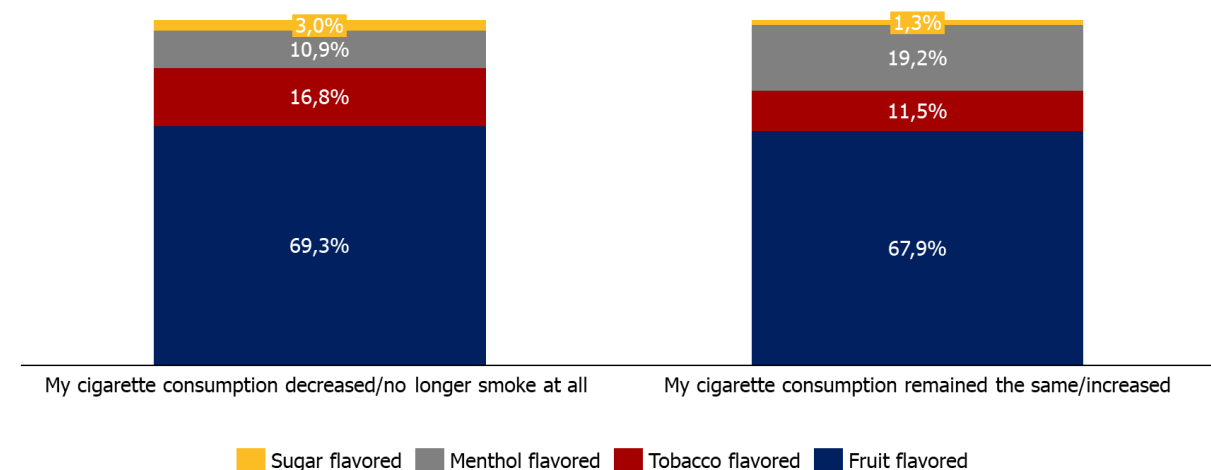
Note: The rate of ATP use was grouped based on the responses to the question "Do you use electronic cigarettes or heated tobacco products (iqos, etc.)?".

Note: Other flavors include participants who answered "Sugar flavor", "Fruit flavor" and "Menthol flavor" to the question "Which type of flavor do you prefer?"

**The proportion of those who use alternative tobacco products increases in the group who reported "my cigarette consumption has decreased/I no longer smoke at all."**

Figure 34 illustrates respondents divided into two groups: "my cigarette consumption decreased/I no longer smoke" and "my cigarette consumption increased/stayed the same." The rate of those who use alternative tobacco products with tobacco flavors is 16.8% among those who stated "my cigarette consumption decreased/I no longer smoke." Conversely, for those who use alternative tobacco products with tobacco flavors, the rate is lower at 11.5% among those who stated "my cigarette consumption increased/stayed the same."

Figure 34. Impact of alternative tobacco products on cigarette consumption, by flavor preference, 2023

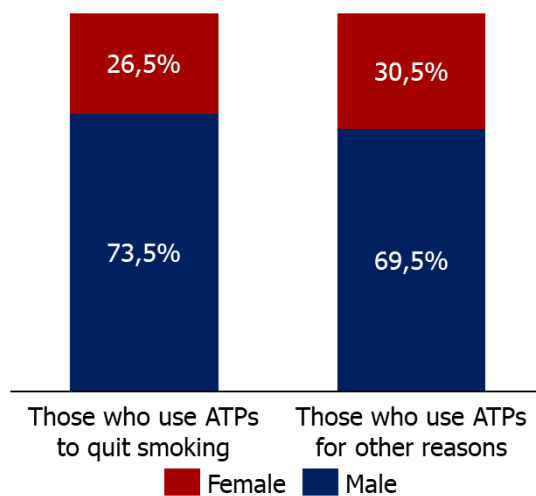


Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked the question "Did using electronic cigarettes/heated tobacco products affect your cigarette consumption?".

**There is no significant gender difference in the reasons for using alternative tobacco products.** Among those who use alternative tobacco products to quit smoking, the proportion of women and men is 26.5% and 73.5%, respectively. Similarly, among those who use these products for other reasons, the proportion of women and men is 30.5% and 69.5%, respectively. As indicated in earlier sections, individuals who consume alternative tobacco products are mostly men, and this is why men are the majority in both groups for reasons for quitting, i.e., to quit smoking versus other reasons.

Figure 35. Reasons for using alternative tobacco products, by gender distribution, 2023

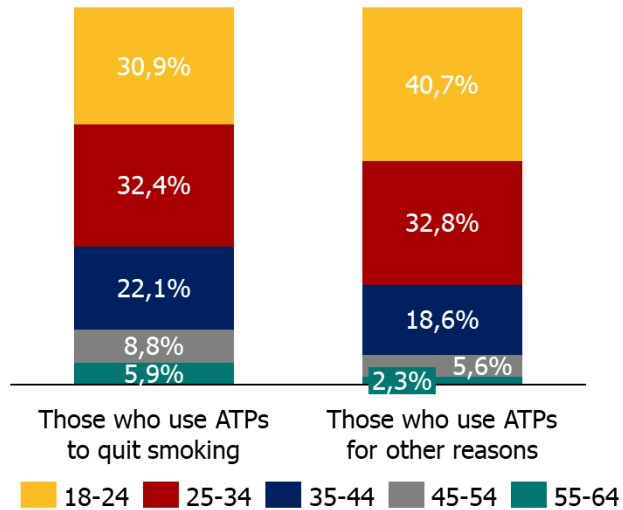


Source: TEPAV Survey, TEPAV Calculations

Note: Participants were asked "What was or is your reason for using electronic cigarettes/heated tobacco products?". Note: Other reasons for using ATP include participants who answered "Because I like the aroma", "Because it smells less/better", "Because it is fashionable", "Because it can be smoked indoors", "Because it is less harmful", "Because it is more affordable", "Because it has fewer side effects than cigarettes (e.g. coughing/inhaling)", "To avoid harming people around me" to the question "What was or is your reason for using electronic cigarettes/heated tobacco products?".

**Younger age cohorts tend to use alternative tobacco products for reasons other than quitting smoking regular cigarettes.** The proportion of the 18-24 age group in this group is 40.7%. On the other hand, among those who use these products to quit smoking, the ratio of the 18-24 age group is lower at 30.9%. Additionally, the proportion of the 55-64 age group among those who use alternative tobacco products for reasons other than quitting smoking regular cigarettes is 2.3%, while the proportion is 5.9% for those who use it to quit smoking.

Figure 36. Reasons for using alternative tobacco products, by age distribution, 2023

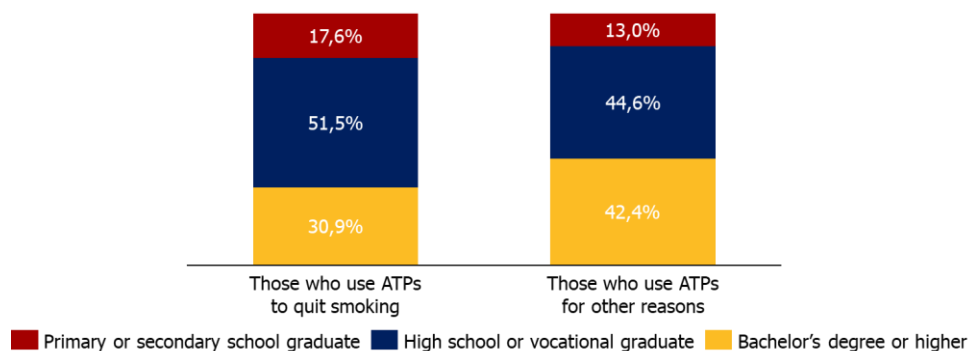


Source: TEPAV Survey, TEPAV Calculations

Note: Participants were asked "What was or is your reason for using electronic cigarettes/heated tobacco products?". Note: Other reasons for using ATP include participants who answered "Because I like the aroma", "Because it smells less/better", "Because it is fashionable", "Because it can be smoked indoors", "Because it is less harmful", "Because it is more affordable", "Because it has fewer side effects than cigarettes (e.g. coughing/inhaling)", "To avoid harming people around me" to the question "What was or is your reason for using electronic cigarettes/heated tobacco products?".

**Participants with higher education levels tend to use alternative tobacco products for reasons other than quitting smoking regular cigarettes.** The rate of participants with a bachelor's degree or higher among those who use alternative tobacco products for reasons other than quitting smoking regular cigarettes was 42.4%, compared to 30.9% for those who use it to quit smoking.

Figure 37. Reasons for using alternative tobacco products, by educational attainment, 2023



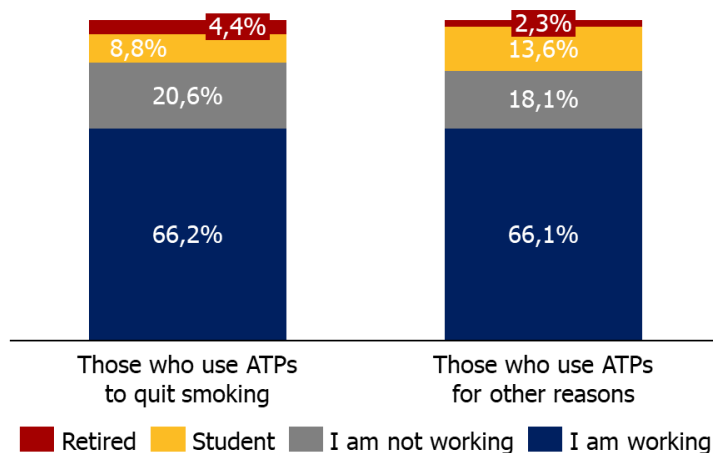
Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked "What was or is your reason for using electronic cigarettes/heated tobacco products?". Note: Other reasons for using ATP include respondents who answered "Because I like the aroma", "Because it smells less/better", "Because it is fashionable", "Because it can be smoked indoors", "Because it is less harmful", "Because it is more affordable", "Because it has fewer side effects

than cigarettes (e.g.coughing/inhaling)", "To avoid harming people around me" to the question "What was or is your reason for using electronic cigarettes/heated tobacco products?".

**Participants who identified themselves as "students" tend to use alternative tobacco products for reasons other than quitting smoking, while participants who identified themselves as "retired" and "not working" tend to use these products to quit smoking.** For students, the rate of individuals who use alternative tobacco products for reasons other than quitting was 13.6%, while it was 8.8% in the group who use it to quit smoking. The reverse trend was observed among respondents who are retired or not working, albeit with smaller variations. No such variation existed for working respondents. This result seems to be line with the fact that younger age groups may be less addicted to cigarettes but more aware of the existence of alternative tobacco products, and may be more prone to trying them after having heard them from their friends.

Figure 38. Reasons for using alternative tobacco products, by employment status, 2023



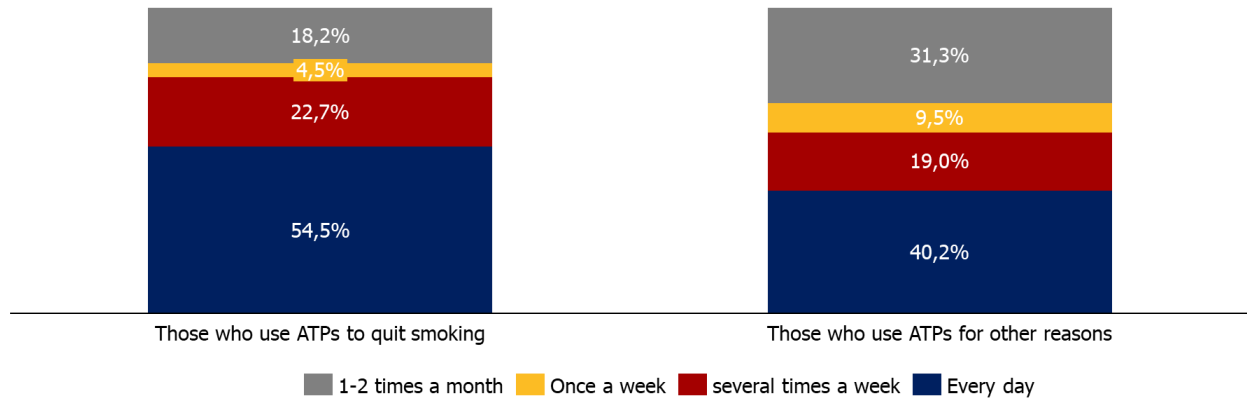
Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked "What was or is your reason for using electronic cigarettes/heated tobacco products?".

Note: Other reasons for using ATP include respondents who answered "Because I like the aroma", "Because it smells less/better", "Because it is fashionable", "Because it can be smoked indoors", "Because it is less harmful", "Because it is more affordable", "Because it has fewer side effects than cigarettes (e.g. coughing/inhaling)", "To avoid harming people around me" to the question "What was or is your reason for using electronic cigarettes/heated tobacco products?".

**More than half of respondents who use alternative tobacco products to quit smoking consume these products every day.** Specifically, the rate of those who use these products every day is 54.5% among individuals who use these products to quit smoking. In contrast, this rate decreases to 40.2% among those who use alternative tobacco products for other reasons. However 18.2%, among those who use these products to quit smoking use alternative tobacco products only 1-2 times a month whereas this rate increases to 31.3% among those who use these products for other reasons.

Figure 39. Reasons for using alternative tobacco products, by frequency of use, 2023



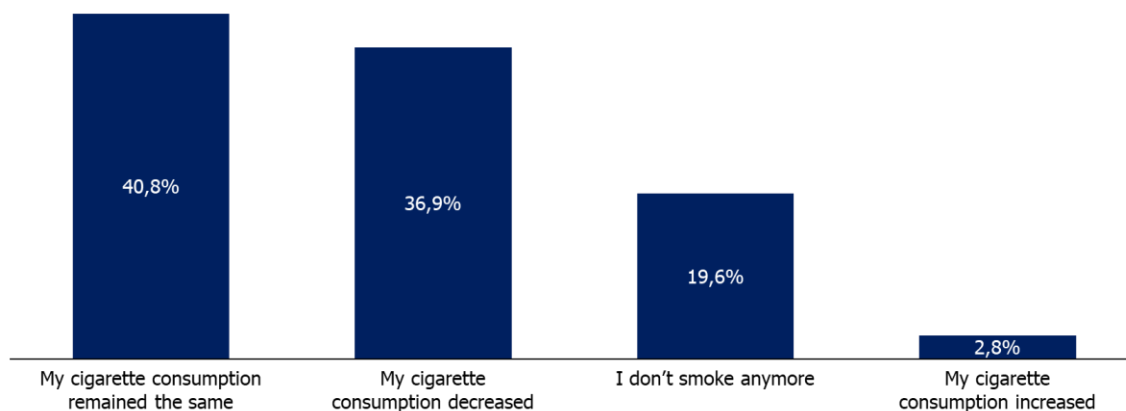
Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked "What was or is your reason for using electronic cigarettes/heated tobacco products?". Note: Other reasons for using ATP include respondents who answered "Because I like the aroma", "Because it smells less/better", "Because it is fashionable", "Because it can be smoked indoors", "Because it is less harmful", "Because it is more affordable", "Because it has fewer side effects than cigarettes (e.g. coughing/inhaling)", "To avoid harming people around me" to the question "What was or is your reason for using electronic cigarettes/heated tobacco products?".

## 2.5. The effect of alternative tobacco product use on cigarette consumption

**More than half of the participants stated that their cigarette consumption decreased or they quit smoking all together after using alternative tobacco products.** However, 40.8% of the participants stated that there was no change in their cigarette consumption, while only 2.8% of the participants stated that their cigarette use increased.

Figure 40. Impact of alternative tobacco product use on cigarette consumption, 2023

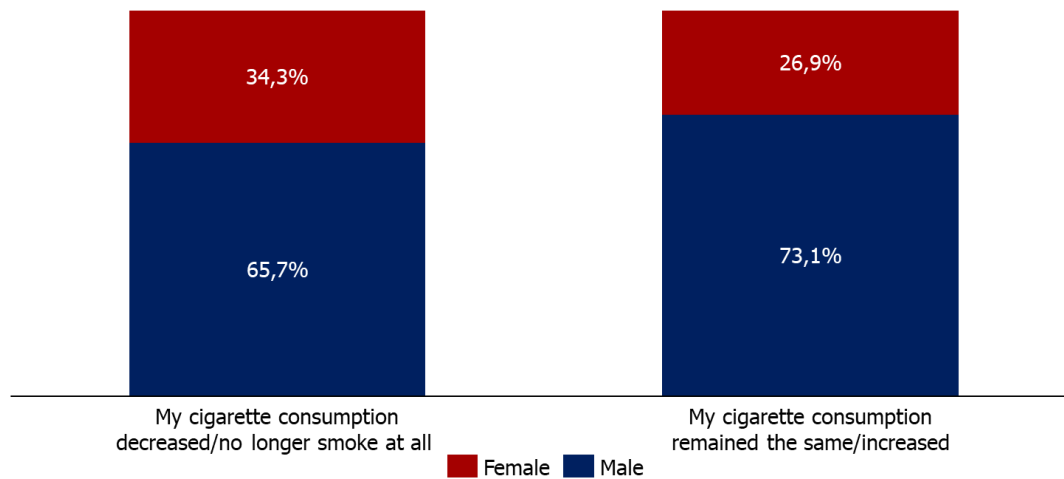


Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked the question "Did your use of electronic cigarettes/heated tobacco products affect your cigarette consumption?".

**Women were more likely to state that their cigarette consumption decreased or they quit smoking with alternative tobacco products compared to women reporting that their cigarette consumption remained the same or increased; a reverse trend can be observed among male respondents.** While the rate of men among those who say that their cigarette use has decreased/l no longer smoke at all is 65.7%, the percentage of men among those who say that their cigarette use has remained the same or increased increases to 73.1%. On the other hand, a decrease was observed for women when comparing the two groups.

Figure 41. Impact of alternative tobacco product use on cigarette consumption, by gender distribution, 2023



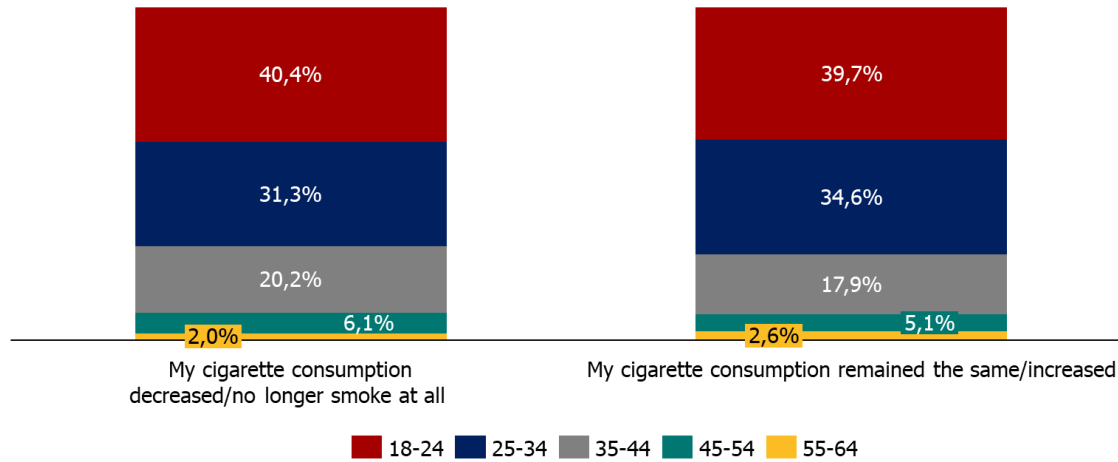
Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked the question "Did your use of electronic cigarettes/heated tobacco products affect your cigarette consumption?".

**There is no significant age variation in terms of the impact of alternative tobacco products on cigarette consumption.** For all age groups that stated that their cigarette consumption decreased or that they no longer smoke, and those that stated that cigarette consumption has remained the same or increased are represented at almost the same rates in both groups.



Figure 42. Impact of alternative tobacco product use on cigarette consumption, by age distribution, 2023



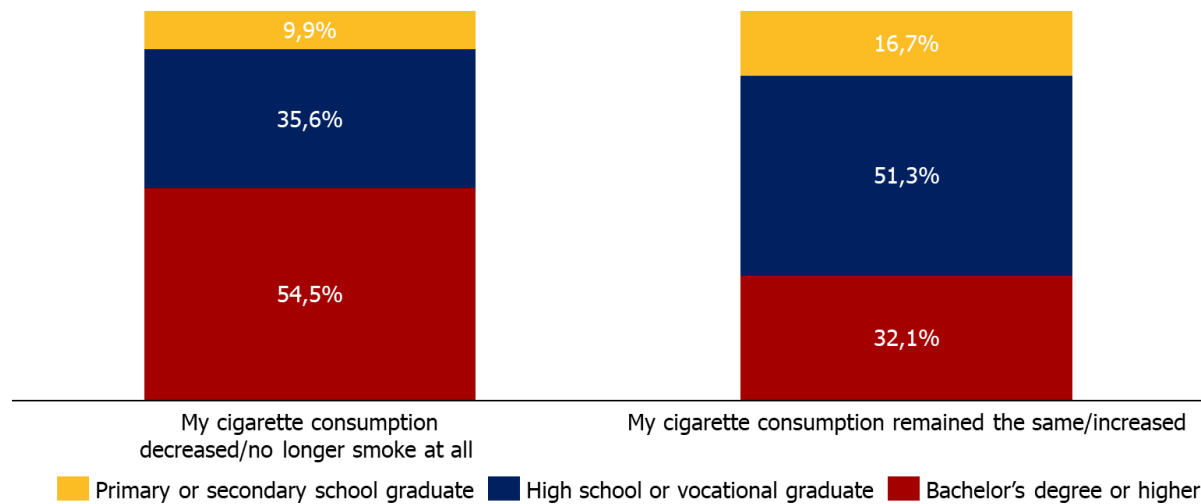
Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked the question "Did your use of electronic cigarettes/heated tobacco products affect your cigarette consumption?".

**The likelihood of quitting or reducing smoking due to the use of alternative tobacco products seems to increase among respondents with higher levels of education.**

While the rate of those with a bachelor's degree or higher was 54.5% in the group who say that their cigarette use has decreased or they never smoke anymore, this percentage decreases to 32.1% among those who say that their cigarette use has remained the same or increased. On the other hand, the group with high school or college graduates, which is the group with the highest usage rate of alternative tobacco product use in the sample, constitutes 51.3% of those who say that their cigarette use has remained the same or increased.

Figure 43. Impact of alternative tobacco product use on cigarette consumption, by educational attainment, 2023

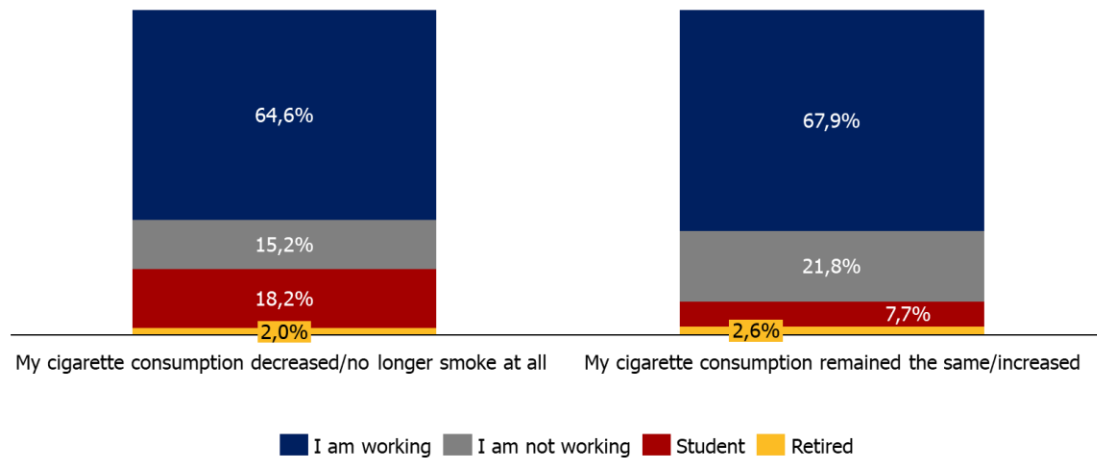


Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked the question "Did your use of electronic cigarettes/heated tobacco products affect your cigarette consumption?".

**18.2% of the respondents who stated that their cigarette consumption decreased or that they have quit smoking are those who identified themselves as "student" whereas this percentage is only 7.7% among those who stated that their consumption remained the same or increased.** This again may be indicative of the fact that addiction to cigarettes may be less severe among younger population.

Figure 44. Impact of alternative tobacco product use on cigarette consumption, by employment status, 2023



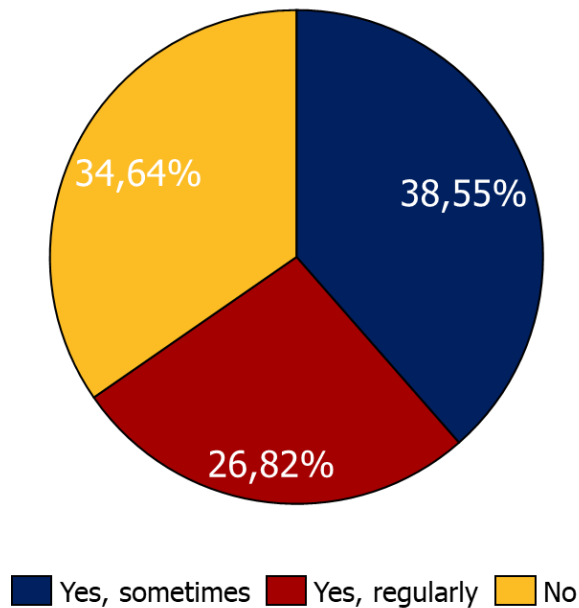
Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked the question "Did using electronic cigarettes/heated tobacco products affect your cigarette consumption?".

## 2.6. Dual usage

**Approximately two thirds (65.37%) of respondents consume alternative tobacco products and cigarettes together.** Of these, 38.55% stated that they sometimes consume them together, and 26.82% stated that they regularly do so. On the other hand, 34.64% of the participants do not consume alternative tobacco products and cigarettes together.

Figure 45. Dual-usage of cigarettes and alternative tobacco products, by use status, 2023

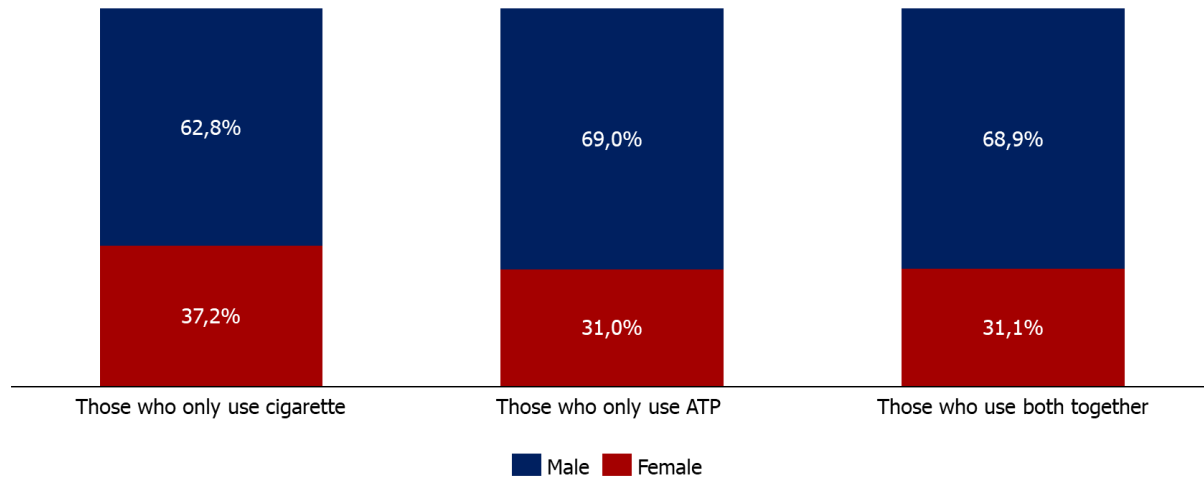


Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked "Have you ever used both products (cigarettes and electronic cigarettes/heated tobacco products) on the same day?".

**The proportion of women is higher among the group who use only cigarettes (37.2%) compared to the groups who use only alternative tobacco products (of which 31.1% were women) and who use both products together (of which 31% were women). On the other hand, the proportion of men increased from 62.8% in the group who use only cigarettes to 69.0% in the groups who use only alternative tobacco products and those who use both.**

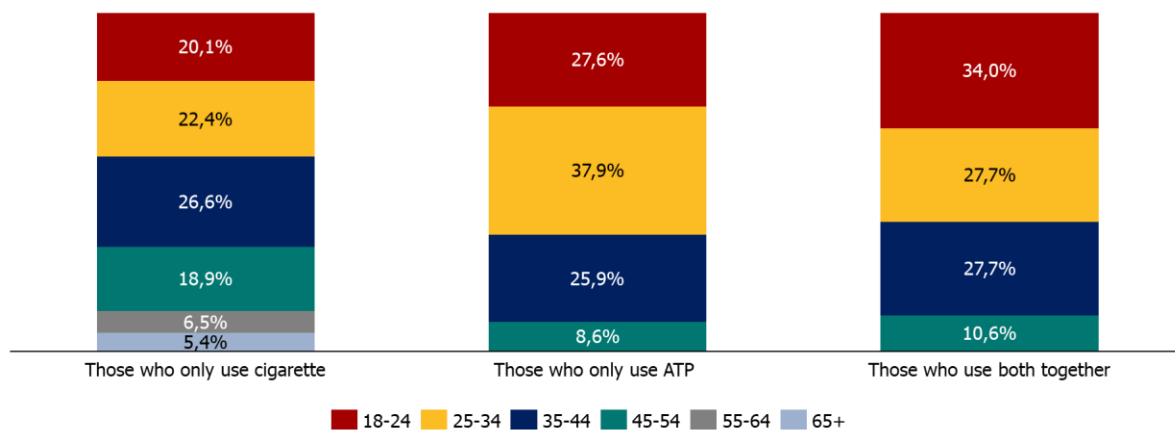
Figure 46. Dual-usage of cigarettes and alternative tobacco products, by gender distribution, 2023



Source: TEPAV Survey, TEPAV Calculations

**Older age groups are higher among those who smoke cigarettes only, while the percentage of younger age groups among those who use both products together are higher.** The proportion of 18-24 year olds who use only cigarettes was 20.1%, while this rate increased to 34.0% in the group representing those who use alternative tobacco products and cigarettes together. On the other hand, the proportion of 55-64 and 65+ age groups was almost non-existent in the group representing those who use both products together. The high percentage of 65.5% among those who use only alternative tobacco products below the age of 34, again seems to be in line with fruit flavor preferences and influence of social groups, and friend networks.

Figure 47. Dual-usage of cigarettes and alternative tobacco products, by age distribution, 2023

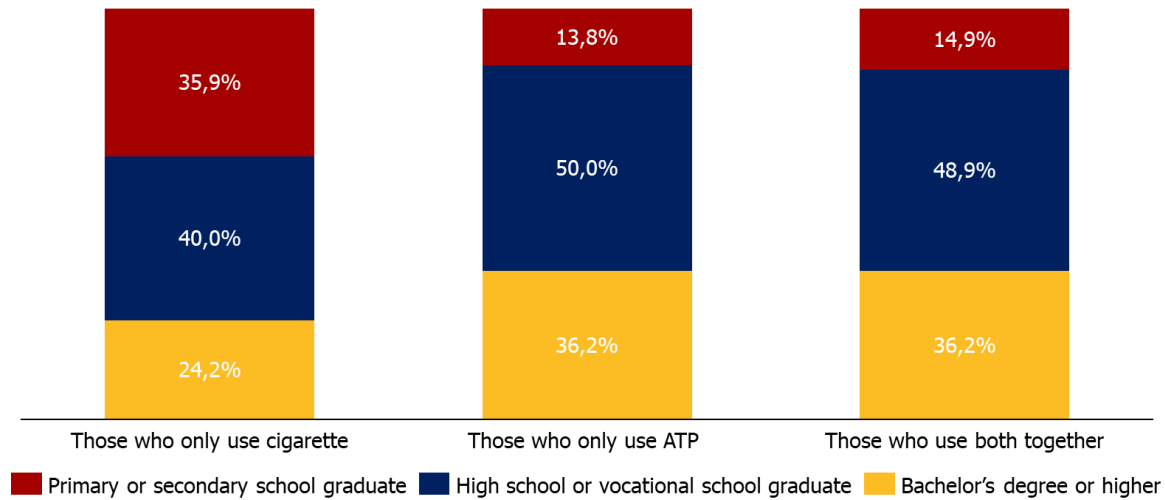


Source: TEPAV Survey, TEPAV Calculations

**Respondents with lower levels of education were more likely to consume only cigarettes.** While the rate of primary or secondary school graduates among those who use only cigarettes was 35.9%, this rate decreased to 14.9% among those who use both products together. A

reverse trend can be observed for high school or vocational school graduates and those with bachelor’s degrees or higher. For instance, the proportion of those with bachelor’s degrees or higher among those who use only cigarettes was just 24.2%, while it was 36.2% among those who used alternative tobacco products and cigarettes together.

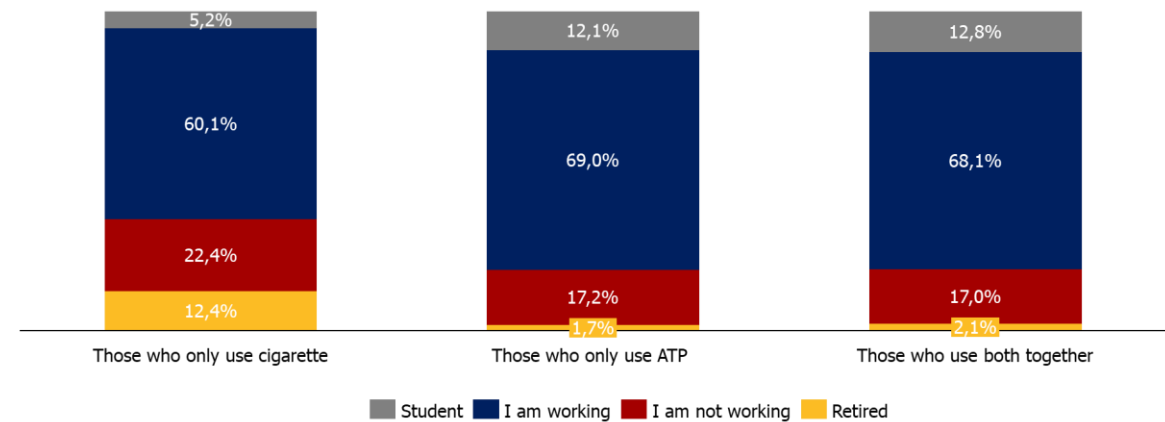
Figure 48. Dual-usage of cigarettes and alternative tobacco products, by educational attainment,2023



Source: TEPAV Survey, TEPAV Calculations

**Respondents who are part of the workforce were more inclined to use both alternative tobacco products and cigarettes simultaneously.** While the proportion of employed individuals among those who exclusively smoked cigarettes was 60.1%, this figure rose to 68.1% among those who used both. A comparable trend was also evident among students.

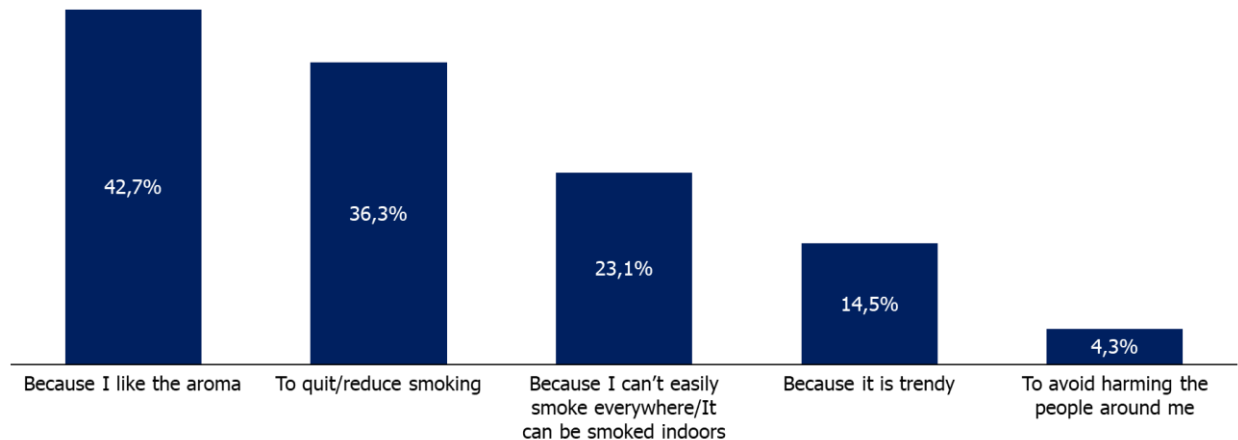
Figure 49. Dual-usage of cigarettes and alternative tobacco products, by employment status,2023



Source: TEPAV Survey, TEPAV Calculations

**The top two reasons reported by respondents for using alternative tobacco products and cigarettes together were the flavor of alternative tobacco products and the desire to quit or reduce smoking.** Among dual users, 42.7% reported that they use both products because they enjoy the flavor, while 36.3% stated that they do so because they want to quit or reduce smoking.

Figure 50. Reasons for dual usage, 2023



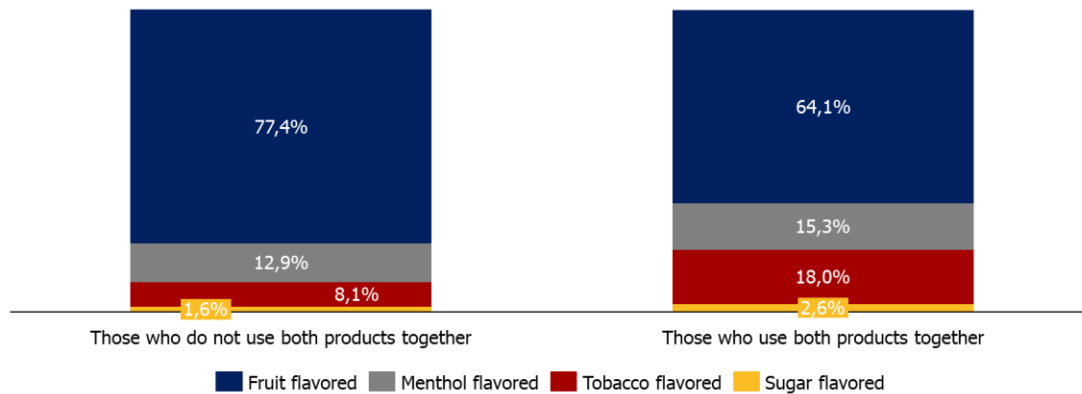
Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked "What was or was your reason for using both products?".

Note: The sample for this question includes respondents who answered "Yes, sometimes" and "Yes, regularly" to the question "Have you ever used both products (cigarettes and electronic cigarettes/heated tobacco products) on the same day?".

**Those who use only alternative tobacco products were more likely to prefer fruit flavors.** Among those who use only alternative tobacco products, the rate of those who preferred fruit flavors was 77.4%, while this rate decreased to 64.1% among those who use both products together. On the other hand, among those who use both products, the rate of those who preferred tobacco flavors was 18%, compared to 8.1% among those who use only alternative tobacco products.

Figure 51. Dual-usage by flavor preference, 2023

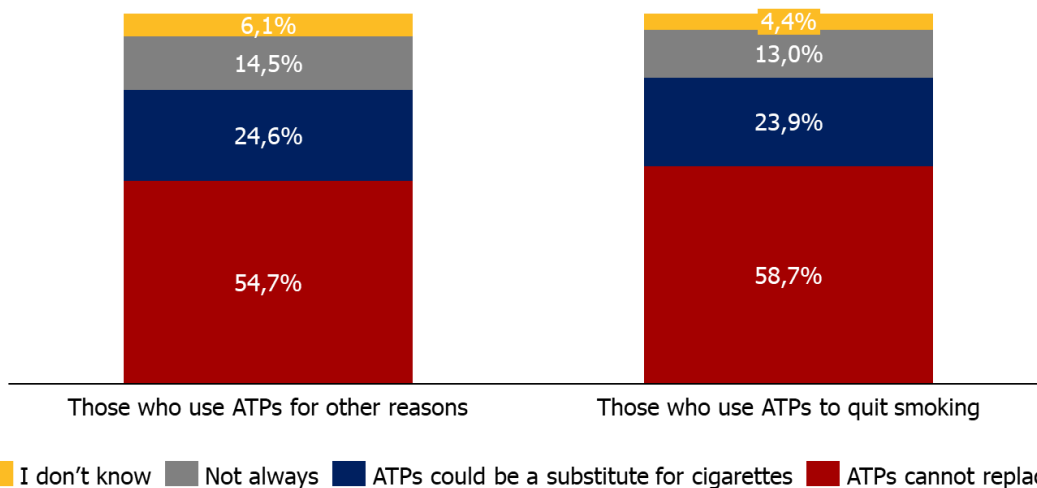


Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked "Have you ever used both products (cigarettes and electronic cigarettes/heated tobacco products) on the same day?".

**The proportion of those who stated that alternative tobacco products were not a substitute for smoking was higher in the group using these products to quit/reduce smoking.** While 58.7% of the individuals who use alternative tobacco products to quit smoking state that these products cannot replace cigarettes, this rate decreases to 54.7% among individuals who use alternative tobacco products for other reasons. On the other hand, the percentage of those who stated that alternative tobacco products can replace cigarettes was 24.6% among individuals who use alternative tobacco products for other reasons, compared to 23.9% among those who use it to quit smoking.

Figure 52. Reasons for use of alternative tobacco products and their substitutability with cigarettes, 2023



Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked the question "Does using electronic cigarettes/heated tobacco products replace smoking regular cigarettes?".

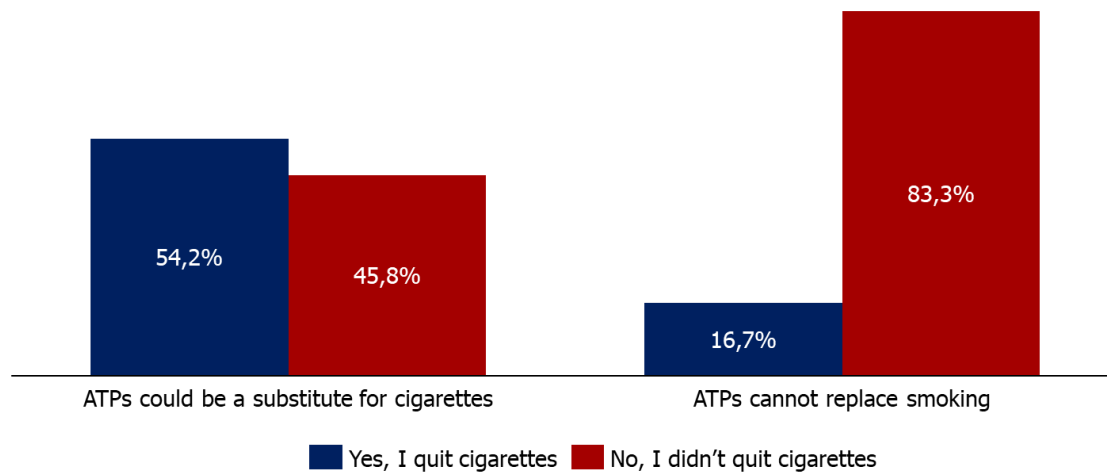
Note: Other reasons for using ATP include participants who answered "Because I like the aroma", "Because it smells less/better", "Because it is fashionable", "Because it can be smoked indoors",

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"Because it is less harmful", "Because it is more affordable", "Because it has fewer side effects than cigarettes (e.g. coughing/inhaling)", "To avoid harming people around me" to the question "What was or is your reason for using electronic cigarettes/heated tobacco products?".

**However, respondents who stated that alternative tobacco products can replace cigarettes were more likely to quit smoking.** The rate of smoking cessation among those who stated that alternative tobacco products was a substitute for smoking was 54.2%. This rate decreases to 16.7% among those who state that alternative tobacco products are not a substitute for cigarettes.

Figure 53. Substitution of alternative tobacco products for cigarettes by smoking cessation, 2023



Source: TEPAV Survey, TEPAV Calculations

Note: The analysis in this slide is based on respondents who answered the question "Does using electronic cigarettes/heated tobacco products replace smoking regular cigarettes?" and respondents who answered "To quit/reduce smoking" to the question "What was or is your reason for using both products?".

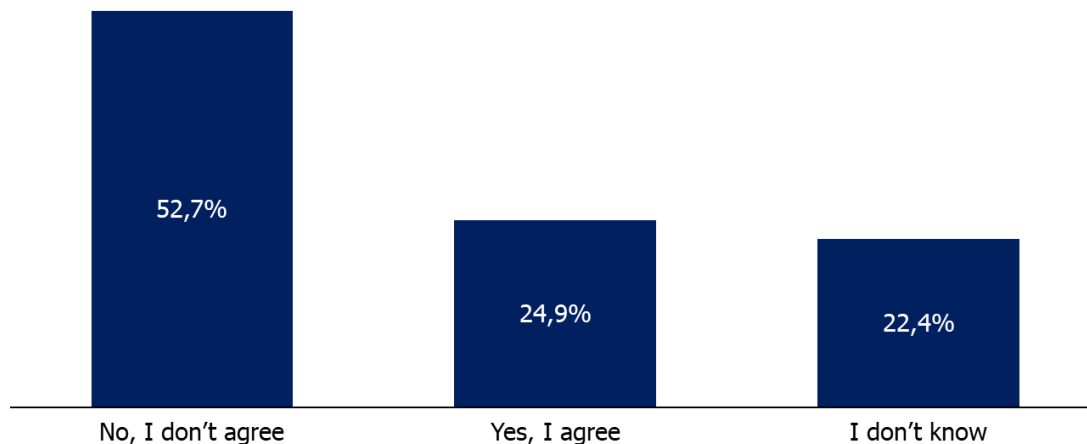


## CHAPTER 3 - REASONS FOR NOT USING ALTERNATIVE TOBACCO PRODUCTS, AND KNOWLEDGE AND RISK PERCEPTION ABOUT THESE PRODUCTS

Chapter 3 examines reasons for not using alternative tobacco products and risk perception about these products. The primary objective of this chapter is to analyze the perception of health risks of alternative tobacco products, to measure the level of awareness of individuals regarding risks, understand their concerns about the potential future side effects of alternative tobacco products, and compare the overall perception on health risks compared to cigarettes.

**More than half of the participants stated that they do not believe alternative tobacco products are less harmful than cigarettes.** On the other hand, 24.9% of the participants believed that alternative tobacco products were healthier than cigarettes, while 22.4% stated that they did not have an opinion.

Figure 54. Comparison of health perceptions about alternative tobacco products compared to cigarettes, 2023



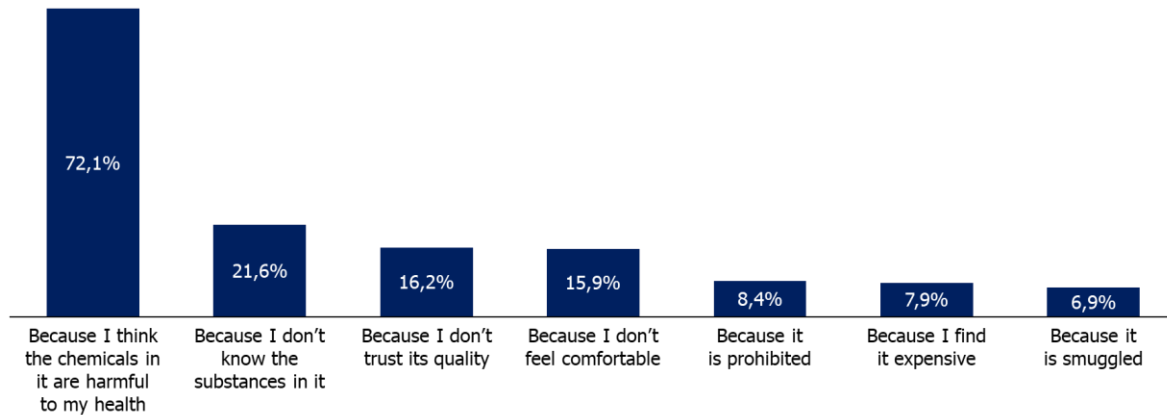
Source: TEPAV Survey, TEPAV Calculations

Note: Respondents who answered "Yes, I have" to the question "Have you ever heard of electronic cigarettes, heated tobacco products (iqos etc.)?" were asked the question "Do you agree that alternative tobacco products are less harmful than cigarettes?".

**The belief that the chemicals in alternative tobacco products are harmful to human health was the primary reason reported by respondents for not using these products.** Specifically, 72.1% of the participants stated that they do not use alternative tobacco products because they believe the chemicals in these products are harmful to their health. Additionally, 21.6% of the participants stated that they did not use these products because

they had no idea about the substances in them, and 16.2% stated that they did not use these products because they did not trust the quality of them.

Figure 55. Reasons for not using alternative tobacco products, 2023

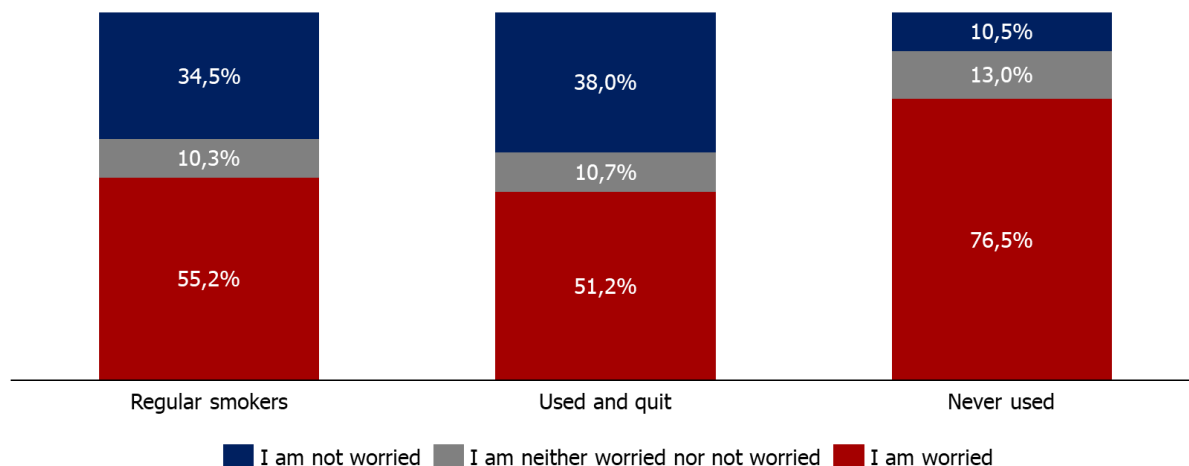


Source: TEPAV Survey, TEPAV Research

Note: Respondents were asked the question "Why do you not use electronic cigarettes/heated tobacco products?". Note: This question was asked to respondents who answered "Yes, I have regularly used alternative tobacco products in the past and quit", "Yes, I tried/occasionally used but did not continue" and "No, I have never used" to the question "Do you use electronic cigarettes or heated tobacco products (iqos etc.)?". Note: This question was asked to the participants in a way that multiple options could be specified.

**Concern about future side effects of alternative tobacco products was high across all segments, particularly among those who have never used these products.** Among those who have never used these products, the rate of those concerned about side effects was as high as 76.5%. Among those who use alternative tobacco products, the rate of concern about the side effects of these products was 55.2%.

Figure 56. Risk perception about future side effects, 2023

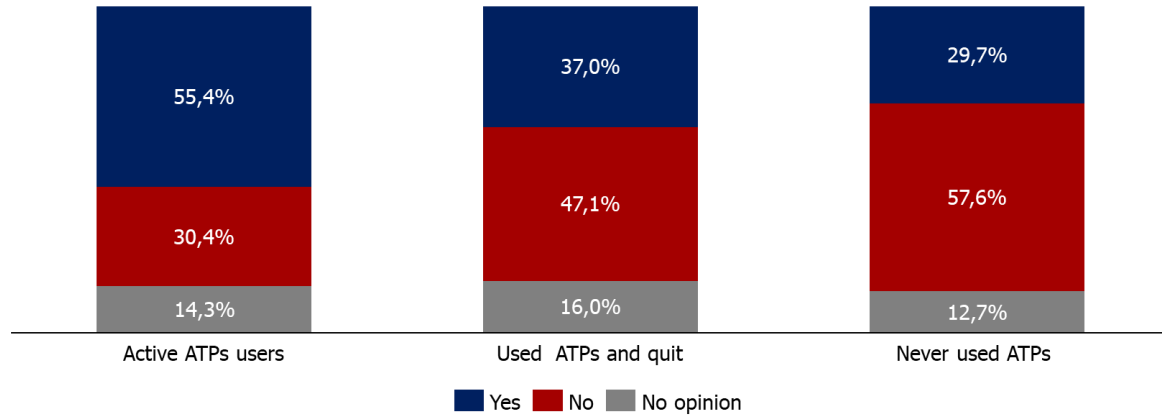


Source: TEPAV Survey, TEPAV Research

Note: "Are you concerned about unforeseen side effects of electronic cigarettes/heated tobacco products that may occur in the future?"

**Respondents who are currently using alternative tobacco products claimed to be more aware of the different chemicals alternative tobacco products contain compared to those who have used alternative tobacco products and quit, and those who never used them.** More than half (55.4%) of respondents who actively use these products stated that they were aware of the content of these products, compared to 37% of those who have used alternative tobacco products and quit, and 29.7% of those who have never used them.

Figure 57. Levels of knowledge about the content of alternative tobacco products, 2023

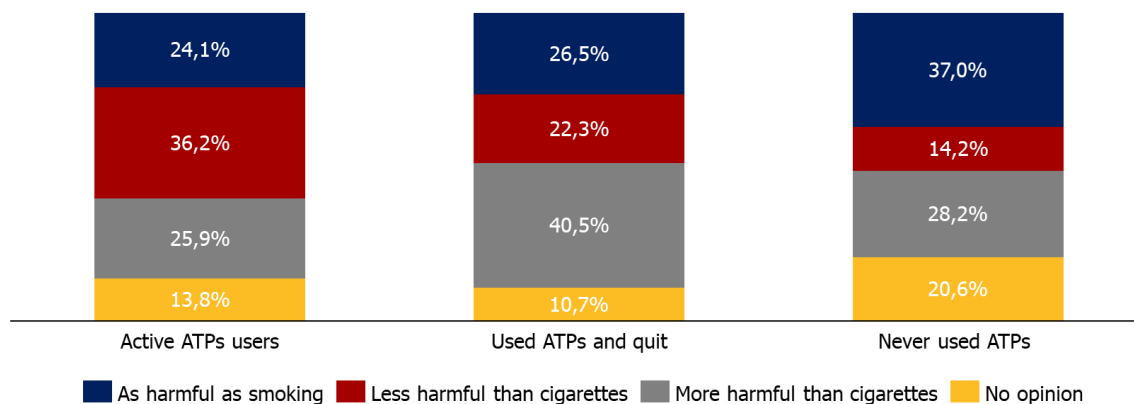


Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked "Do you know whether electronic cigarettes/heated tobacco products contain different chemicals and other substances that may be harmful to health?".

**40.5% of the respondents who had previously used alternative tobacco products but quit stated that these products were more harmful than cigarettes. However, this rate decreased to 25.9% among active users of alternative tobacco products. Additionally, 36.2% of active users stated that these products are less harmful than cigarettes.** It is possible that one of the main motivations for the group actively using alternative tobacco products is the belief that these products are less harmful than cigarettes.

Figure 58. Perceived health risk between smoking and ATPs, 2023



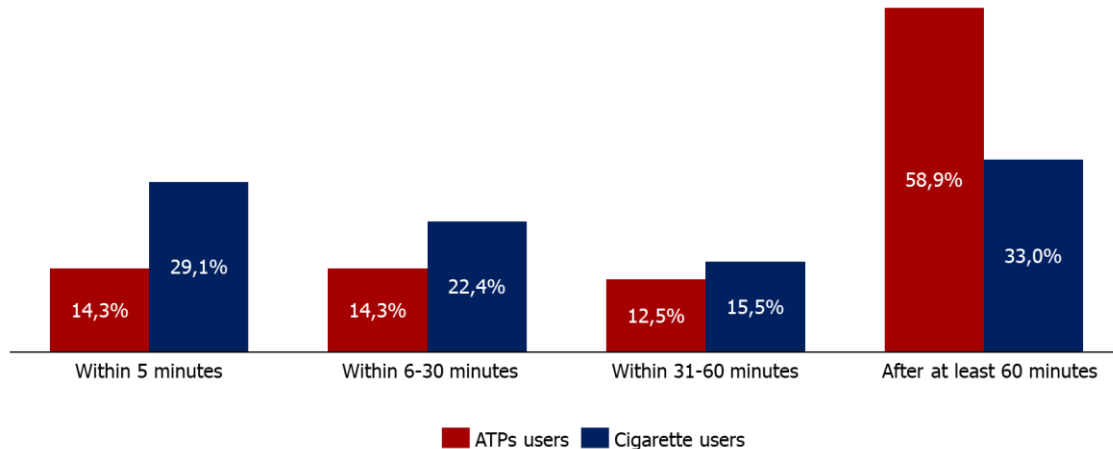
# AN ASSESSMENT OF PUBLIC AWARENESS AND PERCEPTIONS REGARDING ALTERNATIVE TOBACCO PRODUCTS (ATPs) IN TÜRKIYE

Source: TEPAV Survey, TEPAV Calculations

Note: Respondents were asked "What do you think about the health effects of electronic cigarettes/heated tobacco products compared to cigarettes?".

**Alternative tobacco products may be less addictive than cigarettes.** One commonly used method to measure addiction to tobacco or alternative tobacco products is the number of minutes it takes before having the first cigarette/alternative tobacco product after waking up. According to the survey results, the proportion of respondents who smoked their first cigarette within the first 5 minutes after waking up was 29.1% among cigarette smokers, while this rate is 14.3% among alternative tobacco product users. Further investigation is warranted to determine if this difference is attributed to the relatively recent adoption of alternative tobacco products among users, and whether they have yet to develop addiction levels comparable to those observed among cigarette smokers.

Figure 59. Alternative tobacco product and cigarette dependence comparison, 2023



Source: TEPAV Survey, TEPAV Research

## CONCLUDING REMARKS

The findings of this report shed light on the landscape of alternative tobacco product awareness, usage patterns, and perceptions among the adult population in Türkiye. Despite the prohibition on the import, sale, and use of alternative tobacco products, their prevalence in society is increasing, underscoring a significant knowledge gap that this study aimed to address.

The survey revealed that nearly half of respondents are aware of alternative tobacco products, with a relatively uniform distribution across Türkiye, possibly influenced by the prevalence of universities. Social and economic integration emerged as influential factors, with young, working, student, and male individuals more likely to be aware of and use alternative tobacco products.

The survey found that 6.1% of respondents actively use alternative tobacco products, while 18.9% have used them at some point. This contrasts with the 36.8% who actively smoke traditional cigarettes. Usage was more prevalent among certain demographic groups, with the likelihood of using alternative tobacco products at least once decreasing among female respondents compared to males and decreasing with advancing age. Usage patterns varied, with a higher percentage of regular alternative tobacco product users also being regular cigarette smokers. Further research is needed to more carefully examine alternative tobacco product usage patterns.

Dual usage of alternative tobacco products and cigarettes was common with the pleasant aroma of alternative tobacco products, and the desire to quit or reduce smoking are the key drivers of dual usage.

Concerns about the harmful effects of alternative tobacco products were widespread, particularly among those who have never used them. Perceptions of harm compared to cigarettes varied, with former alternative tobacco products users more likely to perceive alternative tobacco products as more harmful. Additionally, while alternative tobacco products may be perceived as less addictive than cigarettes, further investigation is needed to confirm this hypothesis.

This is the first attempt in assessing public awareness and perceptions regarding alternative tobacco products in Türkiye. Despite the insights it has provided regarding awareness and usage, it should be stressed that further work is necessary with a larger, more targeted sample size due to sample size limitations of ATP users analyzed in this study.

## APPENDIX

1. The descriptive statistics of the survey respondents who answered the first Chapter of the report are reflected in the tables below.

Table 1.1

Variable	Categories	Frequency	%
Gender	Male	1002	50.0
	Female	1002	50.0

Table 1.2

Variable	Categories	Frequency	%
Age	18-24	344	17.2
	25-34	474	23.7
	35-44	451	22.5
	45-54	343	17.1
	55-64	159	7.9
	65+	233	11.6

Table 1.3

Variable	Categories	Frequency	%
Educational Background	Primary and secondary school graduate	734	36.6
	High school and vocational graduate	655	32.7

	Bachelor's degree or higher	615	30.7
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Table 1.4.1

Variable	Categories	Frequency	%
Employment Status	Student	103	5.1
	Currently working	998	49.8
	Currently not working	602	30.0
	Retired	301	15.0

Table1.4.2

Variable	Categories	Frequency	%
Currently not working	Have worked previously	347	17.3
	Have not worked before	255	12.7

2. The descriptive statistics of the survey respondents who answered the second Chapter of the report are reflected in the tables below.

Table 2.1

Variable	Categories	Frequency	%
Gender	Male	495	52.1
	Female	455	47.9

Table 2.2

Variable	Categories	Frequency	%
Age	18-24	198	20.8
	25-34	233	24.4
	35-44	225	23.6
	45-54	165	17.3
	55-64	60	6.3
	65+	71	7.5

Table 2.3

Variable	Categories	Frequency	%
Educational Background	Primary and secondary school graduate	256	27.0
	High school and vocational graduate	348	36.5
	Bachelor's degree or higher	348	36.5

Table 2.4.1

Variable	Categories	Frequency	%
Employment Status	Student	58	6.1
	Currently working	514	54.0
	Currently not working	254	26.7
	Retired	126	13.2



Table 2.4.2

Variable	Categories	Frequency	%
Currently not working	Have worked previously	170	67.0
	Have not worked before	84	33.0

3. The descriptive statistics of the survey respondents who answered the third Chapter of the report are reflected in the tables below.

Table 3.1

Variable	Categories	Frequency	%
Gender	Male	496	52.2
	Female	456	47.8

Table 3.2

Variable	Categories	Frequency	%
Age	18-24	198	20.8
	25-34	233	24.4
	35-44	225	23.6
	45-54	165	17.3
	55-64	60	6.3
	65+	71	7.4

Table 3.3

Variable	Categories	Frequency	%
<b>Educational Background</b>	Primary and secondary school graduate	256	27.0
	High school and vocational graduate	348	36.5
	Bachelor's degree or higher	348	36.5

Table 3.4.1

Variable	Categories	Frequency	%
<b>Employment Status</b>	Student	58	6.1
	Currently working	514	54.0
	Currently not working	254	26.7
	Retired	126	13.2

Table 3.4.2

Variable	Categories	Frequency	%
<b>Currently not working</b>	Have worked previously	170	67.0
	Have not worked before	84	33.0