



Perceptions, attitudes and preferences of Europeans regarding smoking and electronic cigarettes – empirical typologies and regional inequalities

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Abstract

In a continuously changing and innovative society, for many, smoking remains a constant, a habit, a moment of relaxation or a moment of friendship. With a long history, marked by various habits and rituals, along the years, from an academic point of view, smoking has been analyzed multi and interdisciplinary, at a sociological level being set as a social construct with a strong impact on a large segment of a society, whatever the type, the dimension, the historical, the economical or the political context of it.

Basing on the 87.1 Eurobarometer, in this research I am analyzing recent results regarding Europeans' attitudes on smoking and on tobacco products, on the innovations in this field and also a classification of the types of smokers, corroborating these types with the "labels" used in everyday life – heavy smoker, occasionally smoker, social smoker etc. The hereby report comprises information gathered at European level, from the 28 member states of the European Union, having a total of 27,901 respondents, aged 15 or more. In order for the data to be representative and in order for us to be able to observe and to compare general tendencies at European and national level, data has been weighted. Also, in order to capture as well as possible and more eloquently public opinion on this subject and also the classification of the respondents in types of smokers, I have used the K-means type cluster analysis.

According to the data obtained from the barometer, more than a quarter of respondents have been daily smokers for over 20 years now, while half of them declared that they have never smoked. Unlike the 2012 Eurobarometer, alongside with the motivations and the possible reasons that caused starting or giving up smoking, the 87.1 survey research emphasizes the electronic cigars and the way these have been contributing to the evolution of this habit.

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Keywords

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Introduction

Innovation is the leitmotif of this century, the discovery and especially the evolution of technology in seeing and setting new limits in the past 18 years, has led to the entire market, as well as society to be challenged by the online environment. From online services and commerce to Alexa and Siri, the personal assistants, to dating, and health applications that promise better time management and a healthier lifestyle through individual measurements and biometric data, the online environment has slowly transformed and changed society as a whole, as well as the way individuals relate to it, every aspect of daily life is affected by the online influence. Debates on the vicious effects of this silent transformation have not failed to appear, highlighting the impact that these innovations have brought on social life, involuntarily and tacitly creating new risks at both the individual and collective level.

One of the areas that has not only gone unnoticed by technological evolution, but has embraced innovation, is the tobacco industry. A social construct with multiple interdisciplinary approaches, smoking has seen its own improvement brought by technological innovation with the emergence of electronic cigarettes and devices. With over 15,000 flavours (from generic classic tobacco to mango, gummy bears, cotton candy), these devices have spread rapidly, reaching smokers and beyond, generating a new public debate on short- and long-term risks, as well as the individual and collective risks (Erythropel *et al.*, 2019). Cigarettes and electronic devices have quickly gained their place among the daily preferences and habits of individuals, the various shapes and flavours attracting even the most sceptical; an advantage over the classic cigarettes is their legality, allowing for the use of an electronic cigarette in any type of environment or location.

While the number of classic smokers has declined slightly in the last decade (according to the World Health Organization, from 1.14 to 1.1 billion), the number of e-cigarette consumers has risen sharply from 7 million in 2011 to 41 million today, a similar trend to the estimated market value – currently estimated at over \$ 19 billion, a significant difference from the \$ 4.2 billion estimated at the beginning of 2011. The e-cigarette market is dominated by the United States, followed by Japan and the United Kingdom at a considerable distance, but also other European countries such as Sweden, Italy, Norway and Germany (Euromonitor International, 2018). Despite the scandal and the ban on electronic cigarettes in several American areas, in August 2019 the leader, Juuls, attracted an investment of \$ 325 million (BBC News).

Without considering the short-term risks, the medium- and long-term effects of regular e-cigarette consumption have begun to be questioned, with a debate argued by both sides, reaching the corridors of global politics. With a generic composition of propylene glycol, nicotine and vegetal glycerine (depending on the case, flavours), the

harmfulness of electronic cigarettes has been established through the nicotine that is used, which is addictive, and the other chemicals found in both the liquid and vapours and in the classic cigarette smoke – where they are similar, but at lower values (Erythropel *et al.*, 2019). As the discussion regarding the risks of use continues on both sides, it was established that the vapours emanating from the consumption of these devices are not harmful to others, like the so-called *second-hand smoke* generated by the classic cigarette (McNeill *et al.*, 2015). Despite this, the medium- and long-term consumption of electronic liquid cigarettes has positioned society and especially users on two radical sides, as the first deaths attributed to these devices in the United States have been registered in 2019 (Centers for Disease Control and Prevention). An impressive increase in the number of users and an epidemic as it has been labelled by the US Surgeon General and the Center for Disease Prevention and Control following the report issued by the US Food and Drug Administration, which reports that approximately 21% of American students between the ages of 11 and 18 vaped² electronic cigarettes at least once in 2018, as well as the recording of numerous cases of lung problems attributed to smoking in no less than 38 states (US Department of Health and Human Services). All this has led to a ban on the sale (including online) of liquid and electronic devices in the US cities of San Francisco, Colorado and Boulder, whilst Michigan became the first state to flat-out ban their consumption and distribution. Simultaneously with the expansion of the Juul giant in the markets of South Korea, the Philippines and Indonesia, India banned the marketing, production and promotion of electronic cigarettes, while Brazil, Seychelles, Thailand also banned consumption, the law applying even to tourists – in Thailand, the use and vaping of citizens and by those in transit is punishable, depending on the severity, from a fine to imprisonment (Embassy of Thailand). According to the latest study by the American Lung Association, 97% of young electronic cigarette users have consumed flavoured products in the past 30 days, while 70% say flavour is the main reason they vape – prior to new regulations on their ban in the US, Juul withdrew from the market the most popular flavours (cucumber and mango) and closed their official Facebook and Instagram accounts in America, mentioned as the main means of promotion among young people (The Wall Street Journal).

Fully opposed to the American decisions and regulations is the British point of view, that considers e-smoking and e-cigarettes as a means of help, which should be taken into account for those who wish to quit smoking permanently – even from the beginning, in the UK there was strict legislation on the promotion, distribution and sale of these devices (i.e., only to individuals over 18 years of age). A recent study conducted at Queen Mary University of London and led by Professor Peter Hajek for electronic cigarette therapy as a substitute for the classic one in the process of permanent quitting, has led National Health Service officials to consider prescribing them for those who wish to give up smoking (Hajek *et al.*, 2019). The experiment exceeded to some extent the necessary conditions, namely

² Vaping is the inhalation of vapors from an electronic cigarette, mostly from electronic nicotine delivery systems, that do not burn, nor they use tobacco leaves, but they vaporize nicotine that is inhaled by the user. (International Agency for Research on Cancer)

the ignorance of the products used by those in the study (placebo or the experimented-upon product), in this case the 886 subjects were divided into two groups – electronic cigarette therapy and another one, in which they were provided, by preference, other products available on the market (patches, gum, spray, inhaler or nicotine drops). The results include a high level of satisfaction and suggested the electronic cigarette as being a much more beneficial substitute than a nicotine patch, a high number of subjects managed to quit smoking permanently and several reduced their consumption by about 50%.

The innovation and evolution of this habit was not limited to the creation of the electronic cigarette, in September c.y. launched a test study of the Juul for the British market to launch the C1 cigarette – like many other nutrition, sleep and sports applications, its simple connection to an Android smartphone allows for the recording and monitoring of the frequency and duration of vaping by the user, as well as the location of the device in case of its loss or even its blocking, for it to only be used by the owner. In order to be accessed, the new device requires facial identification and the user's age, among the desired updates in the future is the automatic blocking of use when in the vicinity of schools and other public areas (Financial Times).

Given the scale, debates, socio-political-cultural implications and market, in March 2017, the European Commission included in the Eurobarometer 87.1 (quarterly reports), a set of questions targeted at current and former smokers as well as at electronic cigarette users. The research is composed of data collected from the territories of 28 European states, with a total of 27,901 respondents aged 15 and over, the data being was collected through stratified sampling. It should be noted that out of the total respondents, only a fourth declared themselves to be smokers and ~20% were former consumers, more than half of the surveyed Europeans stating they had never tried nor smoked. Despite the global expansion of e-cigarettes, out of the nearly 28,000 Europeans, only 433 mentioned the use of these devices today.

Out of the 46.6% (compound percentage, 12,977) of current and former smokers, 54.2% responded that they started smoking when they were between 15 and 18 years old, the data recorded strengthened the figures from the United States of America, regarding the harm and the current epidemic among high school youth. Surveyed about their first tobacco product consumed, 88.0% started smoking with the classic packed cigarettes, the remaining 12.0% being divided between hand-rolled cigarettes (6.5%), cigars (1.4%), electronic devices (0.9%) and hookah (0.8%). Out of more than 7,000 current smokers, 38.5% have had this habit for 21-40 years. Before quitting, individuals labelled as former smokers had been consuming cigarettes and other tobacco products for more than 20 years (43.0%), 38.5% quitting smoking when they were aged between 25 and 39 years and only 14.9% at over 54 years, acknowledging the difficulty of quitting something commonly associated with age. The data is changing when it comes to the use of electronic cigarettes, of the 46.6% of current and former smokers, only 3.1% regularly consume today, 6.2% have quit, while 17.9% have tried several times without it lasting. Regarding the liquids consumed, 44.8% of those who currently vape prefer fruity flavours, while 39.1% stick to classic tobacco – 22.5% use, among others, menthol / mint and 17.1% sweet flavours (vanilla,

chocolate or candy). The preferences of former smokers are slightly different, 47.6% choosing the classic tobacco flavour and 38.6% the fruit flavour, while 16.9% prefer menthol and 15.1% sweet candy flavours. Out of the 15,000 flavours available on the market, percentages are also mentioned in terms of alcohol-flavoured liquid aromas (whiskey, champagne), 2.9% of current users and 4.9% of former smokers mentioning them.

One of the main paradigms encountered when electronic cigarette use is discussed, which the studies above provide evidence for, is their help in the process of permanent smoking renunciation. Of the valid answers provided by Europeans who declared themselves to be *vapers* and tobacco consumers, only 12.2% managed to give up tobacco completely after use, 17.1% reduced their consumption without giving up, while 56.1% did not reduce their consumption nor did they quit smoking. It is worth mentioning a percentage of 5.4% who answered that as a result of using the electronic cigarette they suffered a *side effect*, increasing the amount of classic tobacco consumed. Other reasons for consumption were included in answers, 17.3% of Europeans have started using electronic cigarettes to smoke anywhere, 22.9% consider them cheaper than conventional cigarettes, 31.7% consider them less harmful, 14.6% following the recommendation of friends and 12.1% for the diversity of flavours available – 60.1% also mentioning the reduction / quitting of tobacco consumption.

The expansion of the variety of tobacco products has made smokers want or be able to nuance their preferences for this daily habit. In order to identify the preferences and attitudes of the European society regarding smoking as well as establishing a general profile of smokers, we analyzed the data from Eurobarometer 87.1/ 2017, creating, through the k-means cluster analysis (SPSS), pragmatic behavioural typologies. For national relevance, we weighted the data for the representative sample at European Union level (EU28).

Structured in three parts, the main purpose of this chapter is to observe trends in the preferences of current and former smokers, the secondary objectives being to pursue innovations and understand the collective perception of this habit, labelled by others a *vice*. The structured objectives seek, based on the declared preferences and motivation, to build pragmatic typologies and to sketch a socio-demographic profile for each identified segment – former smokers, current smokers and e-cigarette users. Secondly, we established a generic profile of the smoker/ former smoker/ *vaper*, being able to observe and identify trends and influences at the regional level. It should be mentioned that the research tool and data collected by the European Commission only covered electronic liquid cigarettes (ENDS), not those introduced in 2017, the IQOS/ GLO type, that heat tobacco, defined as a classic-electronic blend.

Each component analysis of the chapter is performed primarily on the category of respondents who were the subject of the study, the grand total of 27,901 respondents were divided into 7,185 (25.8%) current smokers, 5,792 (20.8%) former consumers of cigarettes and other tobacco products, 14,866 (53.4%) being excluded based on the answer that they had never smoked. The analysis of preferences and consumption of cigarettes and electronic devices targeted a total of 433 user respondents at European level.

Empirical types of current smokers

Based on the smoking preferences of 25.8% of Europeans, experimenting with different types of tobacco and the number of cigarettes consumed regularly, we grouped the data from the k-means analysis into four categories of regular smokers - we tried to overcome the classic three type model that clearly outlines those who say Yes - No - Maybe. It should be noted that initially, we processed the data for six and later on, five clusters, but the resulting differences were not well underlined, showing the nuance rather than the substance, which was the pursued purpose. Divided in four different types, the generated classification is an exploratory and empirical one, aiming to highlight statistically the similarities and differences between respondents, without following a clear theoretical premise – sketching socio-demographic profiles aims to highlight trends depending on the European socio-economic-political context, thus emphasizing geographical influences in the daily habits of individuals and possible regional inequalities.

We coded the answers of the items according to intensity and constancy, so that to the questions “How often do you use the following products?” and “Have you tried or consumed the following products regularly?”, 1 refers to the answers ‘never’ while 6 to ‘every day’. For the answers to the item “How many cigarettes do you consume daily?” we worked on the five-category coding issued by the Leibniz Institute, from 1 ‘less than one cigarette’ to 5 ‘over 21 cigarettes’. Similar work was done on the socio-demographic variables regarding the respondent's age, education and country of origin, with the researchers working regionally on East/ West Germany and Great Britain/ Northern Ireland.

The four resulting types of smokers (Table 1) can be arranged on a scale of traditionalism, from the conformist who prefers to consume only classic packed cigarettes and is reluctant to change, to the one who experiences and prefers eclectic consumption, making out of this habit a bohemian one. It is noteworthy that the variable that traces the typology from the very beginning is the one in regard to the constant use of packed cigarettes.

Type 1/ The classic, traditional, preferences compliant smoker – The respondents included in this category are the consumers of classic, packed tobacco, most of them smoking regularly, from 6 to 10 cigarettes per day – it is worth mentioning the score close to .50 which indicates that among them are individuals whose consumption exceeds the maximum limit of of the 10 cigarettes category, positioning them in the next level, of 11 to 20 cigarettes / day. Despite the preference mostly for classic cigarettes, it is worth mentioning that this type of consumer has tried up to 25% 'once or twice' hookah and hand-rolled cigarettes – although small, the scores are close to the first quartile. (1.22, respectively 1.23), but still, with the exception of these scores, the specifics of the this type remain, they show reluctance to new products and experiences, the preferences for tobacco being classic, traditional ones.

Table 1.1 K-means cluster analysis: empirical types of smokers

		Type 1 Classic	Type 2	Type 3	Type 4 Eclectic
How often do you use the following tobacco products?	Boxed cigarettes	5.94	1.75	5.46	4.38
	Hand-rolled cigarettes	1.22	5.95	5.38	1.70
	Cigarillos	1.10	1.19	1.35	2.16
	Cigars	1.10	1.17	1.32	1.94
	Pipe	1.05	1.09	1.22	1.68
	Number of cigarettes / day	3.48	3.57	3.66	3.00
Have you ever tried or used?	Water pipe (<i>shisha</i> , <i>hookah</i>)	1.23	1.37	1.68	2.81
	Oral tobacco (snus), chewing or nasal (snuff)	1.06	1.11	1.22	1.67
	% of case in each cluster	66.3%	12.6%	11.3%	9.7%

Source: Eurobarometer 87.1/ 2017, authors' analysis. N (valid) = 7.185

The socio-demographic profile (Table 1.2) best highlights gender inclusion, the difference between men and women being of 6.2%, compared to other types in which it increases up to 44%. With an additional 110 respondents, the age distribution shows the classic smoker as a middle-aged man, 40-54 years old, an important note is that this is the only group in which this age reaches the maximum value, the others with a demographic segment of 25 – 39 years old. The profile is completed by a predominantly pre-university education (54.4%, a maximum value that follows the trend of types 3 and 4 whose threshold between high school graduates and university students is at an increase of about +50%). With an environment of residence in a small or medium-sized city (38.5%) and no financial difficulties in the last 12 months (54.1%), this type of smoker is assessed as belonging to the middle class of society (44.7%) and declares in proportion of 58.0% satisfied with his life, at a distance of at least 25 percent from those very satisfied or dissatisfied. From an occupational point of view, those included in this pattern of consumption are mainly employed with a steady job (55.1%) (Table 1.3, Annex 1).

Type 2/ Classic and crafty smoker, through the preference for hand-rolled cigarettes – contrary to those of Type 1/ Classic, the respondents included in this cluster prefer as a daily consumption, the hand-rolled cigarettes, the score in most cases exceeding the limit of 10 cigarettes that suits this pattern. The aversion shown by classic smokers (Type 1) for rolled cigarettes is their aversion to the classic ones, this type of tobacco being tried and kept at a moderate, monthly consumption. Despite the clear preference for the

consumption of a particular cigarette, the data shows roughly the same values for the rest of the products and experiences with different types and forms of tobacco, the difference being rather of slightly higher values, but not enough to create a combination with smokers and the habits of those in group 3/ Eclectic – they are found rather in the middle between groups 3/ Mixed and 1/ Classic.

It can be observed that, from a socio-demographic point of view, like type 1/ Classic, the gender difference of smokers is no longer deeply shown (58.2% men, 41.8% women), in fact, except for those aged 15-24, and the proximity of the percentages regarding the age, labelling it as an all-inclusive typology (the difference of 0.5% between the age categories totals 6 respondents). The high percentage of women smokers (41.6%) makes this type of consumer all the more interesting as their preference is especially directed towards hand-rolled cigarettes, and the daily quantity tends to exceed for many the limit of 10 cigarettes. Mostly with pre-university studies completed (50.5%), similar to the other data, most smokers come from a small-/ medium-sized city (39.6%), without having encountered financial difficulties in the last year (41.2%), even if 54.6% of them did not have a job at the time of data collection, almost half being retired – 21.9% (the remaining 20.0% were unemployed, 7.2% were students and 5.5% were housewifely); social class was much better seen than in the previous typology, 44.8% being placed directly in the working class and only 30.8% in the middle class, while self-assessment of life satisfaction remains similar to the results in group 3/ Mixed .

Type 3/ Mixed preferences smoker – with the majority of respondents exceeding 10 cigarettes per day and succeeding Type 4/ Eclectic regarding their score trend, users in this cluster smoke equally and regularly both traditional and hand-rolled cigarettes, with no visible differences that could highlight a specific preference. In a small manner, the hookah experience and the consumption of pipe and leaf cigarettes are highlighted – of these, only the first registering a higher exposure. It should be noted that despite the fact that the values recorded in the cluster establish on average the habit of consuming classic and hand-rolled cigarettes as a weekly one, it also includes the highest score on the daily amount of tobacco, a large part of those included in the pattern exceeding 10 cigarettes.

From a socio-demographic and professional point of view, the smoker included in this typology is mostly male (70.2%), aged between 25 and 39 years old (31.5%), graduated pre-university studies (52.9%), from a small- / medium-sized city (43.8%), placed in the working class or middle class (74.8%), and without financial difficulties expressed in the last year (41.3%) – despite this, 51.9% do not have a job, percentage composed exclusively from 21.6% strictly unemployed people, 14.4% students, 3.3% housewifely and 12.5% retirees. Regarding self-assessment on life satisfaction, 49.4% of respondents say they are ‘satisfied’ with what they have, 30.7% still consider themselves ‘dissatisfied’ and ‘very dissatisfied’ (compound percentage – 22.5% and 8.2%).

Table 1.2 Socio-demographic profile of the types of respondents (% per column)

		Type 1 Classic	Type 2	Type 3	Type 4 Eclectic	Total
Gender	Masculine	53.1	58.2	70.2	72.4	57.5
	Feminine	46.9	41.8	29.8	27.6	42.5
Age categories	15 - 24 years	11.1	14.9	25.0	25.3	14.5
	25 - 39 years	29.2	28.2	31.5	33.5	29.8
	40 - 54 years	31.5	28.7	25.9	19.6	29.4
	55+ years and older	28.2	28.2	17.5	21.6	26.3
Education (age at school completion)	15 years	12.0	16.3	11.4	5.1	11.8
	16 - 19 years	54.4	50.5	52.9	41.4	52.5
	20+ years and older	27.8	25.4	20.1	35.1	27.3
	Still studying	5.2	7.2	14.6	16.8	7.6
	No full-time education	0.6	0.6	1.0	1.6	0.7
Type of community	Rural area or village	32.6	33.3	29.7	27.6	31.9
	Small/ middle town	38.5	39.6	43.8	37.9	39.2
	Large town	28.9	27.1	26.5	34.5	29.0

Source: Eurobarometer 87.1/ 2017, authors' analysis. N (valid) = 7.185

Type 4/ The eclectic smoker, with multiple, even bohemian preferences – with a precise number of 6 to 10 cigarettes per day, type 4 includes eclectic consumers who want to go beyond the traditional limits of smoking, willing to try and experiment with various tobacco products. Adherents to a moderate extent of ordinary cigarettes, more than half tried chewable tobacco, classic pipe, hand-rolled cigarettes, declaring themselves monthly consumers of sheet cigarettes, and cigarettes and cigars, respectively. The high score recorded by the frequency of hookah consumption tends to place the respondents very close to the category 'I consumed occasionally or regularly, but I stopped'.

Compared to type 1/ Classic, which, with the exception of traditional cigarette consumption, has the lowest values on adjacent products, this pattern has mainly the highest scores in the entire analysis when highlighting products and various experiences for tobacco ingestion and consumption. As expected, the number of respondents visibly highlights the discrepancy between the two groups and implicitly the two forms of consumption, the 1/ Classic cluster registering 4,761 (66.3%), while this one has only 700 (9.7%) smokers.

Socio-demographically, this type of consumption is by far a male one (72.4%), specific to adult men aged between 25 and 39 years (33.5%), with a pre-university education, coming from a small-/ medium-sized city, middle class (51.3%), satisfied with their own life (58.6%), without financial difficulties (64.2%) and in proportion of 50.0% with a secure occupational status, employees.

It should be noted that the values of this type are the most pronounced from the analysis, but it should be highlighted that the scores that follow the greatest ones tend to go in the opposite direction compared to the rest of the analysis, a secondary socio-demographic profile of group 4/ Eclectic showing young males of 15-24 years old (25.3%, ↓8.2%), with university studies (35.1%, ↓6.3%) coming from big cities (34.5%, ↓3.4%) and that tend to be 'very satisfied' with their own life (28.1%, ↓30.5%).



Figure 1 – Distribution of current smokers in EU28

Table 1.2 shows the socio-demographic profile of the four categories of smokers described above, while also highlighting the general typology of the individual who usually smokes regularly today. Thus, the typical smoker is predominantly male (57.5%), aged between 25 – 39 years old (29.8%), with pre-university education (52.5%) and residing in urban areas, more precisely from a small- / medium-sized city (39.2%). He is also defined by the fact that he has not had financial difficulties in the last 12 months (52%), is part of the middle (42.8%) and declares himself 'satisfied' with his life (56.1%). In terms of occupation and occupational status, the typical smoker is 51.0% employed and 29.5% manual worker – it should be noted that of the 7,185 self-identified respondents as smokers, 41.9% at the time of data collection did not have a job (including the categories of housewifely, students, retirees, unemployed).

1.1 Regional trends and inequalities

Regarding the number of smokers in each of the 28 countries from the study, the data from Figure 1 shows how most of tobacco consumers are from Germany (5.4%, 319), followed by Bulgaria (5.2%), Greece and Croatia (5.1%) and, subsequently France (5%). Without a clear geographical or regional trend, the fewest smokers are from Sweden (1.0%), followed by small-sized countries – Luxembourg (1.5%), Malta (1.7%) and Cyprus (1.9%).

Figure 1 shows the general distribution of smokers, regardless of the type of cigarettes they are consuming, of the daily quantity or of the socio-demographic profile of users. Regarding the daily quantity of consumed cigarettes, the European average (EU28) places the smoker at 11 – 20 cigarettes (46.4%, 2337) – Table 1.4 (annex 1) shows that women smoke maximum 10 cigarettes per day (54.4%, compound percentage), while men exceed with 11.8% even 21 (75.1% compared to 24.9%, the percentage of women in this category, noting that 11.8% men also declare a maximum of 5 cigarettes per day).

Table 1.5. Socio-demographic correlation of the amount of tobacco consumed daily – number of cigarettes

	Gender (1 Masculine/ 2 Feminine)	Age	Type of community (1 Rural area/ 3 Large town)	Difficulties paying bills (in the last 12 months)	Life satisfaction (1 Not at all satisfied/ 4 Very satisfied)
Number of cigarettes/ day	-.193** .000 6869	.133** .000 6869	-.042** .001 6865	.102** .000 6758	-.133** .000 6832

** . Correlation is significant at the 0.01 level (2-tailed).

By statistically correlating the number of cigarettes consumed with the rest of the demographic variables (Table 1.5), it is confirmed that the elderly consume more cigarettes, and that there is an inversely proportional relationship between personal satisfaction and personal economic success, more precisely, the larger the number of cigarettes, the lower the life satisfaction and more financial problems are encountered (difficulty paying bills) – a higher consumption in rural areas compared to urban areas, especially large cities, is confirmed.

The graph shown in Figure 2 shows the distribution of each cluster in the 28 states included in the analysis, observing an increased incidence of the typology of eclectic smokers in the Nordic countries compared to the Southern region (including extended areas, East and West) – it should be noted how the whole area is roughly divided between the two typologies. In turn, those who prefer hand-rolled cigarettes (type 2) are spread in each region, covering with accentuated values the Western and North-Western area, despite the fact that the maximum is seen in Hungary (37.5%) – country where cumulated types 3 and 4 are close to equating the preference for classic cigarettes (43.9% vs. 45.0%). However, the low value of eclectic smokers in the United Kingdom is noteworthy, contradicting the libertine and non-conformist mirage of the area. Regarding type 1, of the classic smoker reserved in experimenting with other tobacco forms and products, Romania

registers the maximum value, 90.3%, standing at +6% of Portugal and not less than 8.6% of Bulgaria.

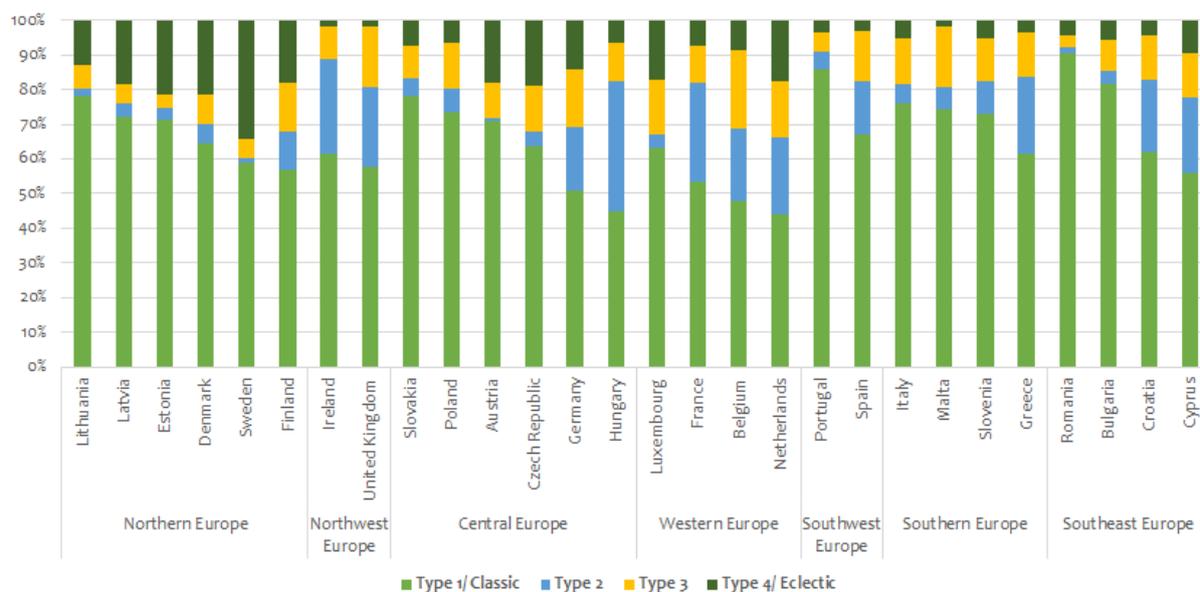


Figure 2 – Country-level cluster distribution (EU 28, Type 1/ Classic smokers regional arrangement)

Mostly a Southern typology, specific to the middle class and the working class, as shown by the data contained in the socio-demographic profile, both the presence of Lithuania and Poland is a novelty compared to the general trend. It is interesting how the respondents of each country position themselves regarding their own preferences and habits on smoking, but also on accepting innovation and experimenting with tobacco use.

In the 7,185 European respondents who answered that they currently smoke, and through a statistically significant correlation, we established that women started smoking later than men, have a lower daily consumption and also know the harmfulness of electronic cigarettes, which they do not consider safer (*risk free*) compared to the classic ones. A similar approach can be seen for those in urban areas and people with higher education/ university studies, who started smoking at an acceptable age, consuming a lower number of cigarettes per day than those in rural areas and with a secondary education. It should be noted that those with a higher education level had declared attempts to quit in the last 12 months, considering vaping a healthier aid, with a lower degree of risk compared to classic smoking. When it comes to age, the data confirmed that the number of cigarettes smoked daily increases with age as does the reluctance to give up.

At the European level, there is a causality between the number of cigarettes consumed daily and the harmfulness of smoking, the respondents self-identifying as passionate smokers did not agree with the lack of effects attributed to electronic cigarettes. At the same time, those who smoke for a short period of time with a low daily number of cigarettes, are those who have tried to give up this vice permanently in the last

12 months. Compared to the EU28, at the Romanian national level there was less valid data as a result of significant correlations meant to present the interdependence or causality of some items. Thus, in the European level, 25.8% of respondents were current smokers, the national studied sample showed that 28.0% of Romanian are smokers today. Similar to the European trend (EU28), women started smoking later than men and consume fewer cigarettes per day. However, urban Romanians consider vaping safer than classic tobacco and people with higher education smoke daily more than the rest.

Empirical types of former smokers

The second part of this chapter targets former smokers in the data collected by the European Commission, 5,792 (20.8%) of the 27,901 respondents stating that they smoked regularly but not currently. The analysis follows the same format and rigor as the previous one, focused on those who were still smoking at the time of data collection, four typologies based on the same set of questions were created for comparison purposes, this time clearly stating that it addresses those who no longer share this habit – the items included in the creation of the clusters concern the number of cigarettes smoked per day and the frequency or regularity of consumption of certain types of tobacco products, from classic packed cigarettes to hookah, pipe or chewing tobacco.

Table 2.1. K-means cluster analysis: empirical types of former smokers

		Type 1 Classic	Type 2	Type 3	Type 4 Eclectic
How often did you use the following tobacco products?	Boxed cigarettes	5.51	4.73	5.33	4.78
	Hand-rolled cigarettes	1.17	5.49	2.40	2.08
	Cigarillos	1.14	1.45	1.97	2.93
	Cigars	1.14	1.37	1.88	2.64
	Pipe	1.08	1.31	2.09	4.06
	Number of cigarettes/ day	3.38	3.63	3.31	3.51
Have you ever tried or used:	Water pipe (<i>shisha, hookah</i>)	1.26	1.39	2.34	1.61
	Oral tobacco (snus), chewing or nasal (snuff)	1.07	1.18	6.30	1.24
	% of case in each cluster	76.9%	12.7%	3.9%	6.5%

Source: Eurobarometer 87.1/ 2017, authors' analysis. N (valid) = 5.792

Based on the same pattern, the answers of the variables included in the generation of the k-means analysis have been coded – for the questions “How often did you use the following products?” and “Have you tried or consumed the following products regularly?”, the setting was 1 for the ‘never’ answers and 6 or 7, as the case may be, for ‘every day’. For

the number of cigarettes consumed per day and the variables included in the creation of the socio-demographic profile, the previous processing was kept, used in part 1.

Type 1/ The former classic, traditional smoker, enthusiast of packed cigarettes – With more than three-quarters of integrated respondents in this group, the expressed preferences define this type as that of the classic smoker who regularly consumed packed cigarettes, not the kind to step out of the comfort zone by trying other tobacco products. Showcasing the highest score for the consumption of classic cigarettes, the frequency expressed by some respondents by .51, places this type closer to the daily consumption than to the weekly one corresponding to category 5 – highlighting the moderate value of the number of cigarettes smoked daily, those in the cluster did not exceed 10. A group quite reluctant to use other tobacco products, with the first quartile scores clearly showing that these individuals, regardless of when they identified as smokers, never smoked pipe, cigars, sheet cigarettes nor did they ever have an affinity for chewing tobacco.

There were also no fans of hand-rolled cigarettes, which many be considered similar to the packed ones, except for the cost of packaging and brand, few declared trying hookah once or twice. Through the format of the predefined answers, we saw what they did not want to try, thus being able to label this cluster as a reluctant one, a devotee of the classic, traditional cigarette.

Socio-demographically (Table 2.1), despite the discrepancy, this type is by far the most inclusive, the gender difference being 6.6%, compared to the rest who sketch the former smoker as strictly male. In proportion of 53.3%, this is a man over 55 years old (53.0%), mainly with pre-university education (43.3%), who comes from a small-/ medium-sized city (41.6%), without a job (52.2%), which despite this fact do not declare financial difficulties (69.1%) (Table 2.3, annex 2). Mostly part of the middle class (49.7%), they declare themselves 'satisfied' with their life (57.4%). Regarding the 52.2% that quantifies the number of those without a job at the time of data collection it should be mentioned that it is a percentage composed of 39.3% pensioners/ retired, 5.7% unemployed, 4.6% housewifely and 2.6% students – the percentage of retirees is rationally explained by the fact that most individuals of this type of respondents are of over 55 years old. A new mention regarding this type refers to the environment of residence which, despite the difference of 10 percent, we notice how the next recorded score places the former smoker in the rural area.

Type 2/ Classic, crafty smoker, with a preference for hand-rolled cigarettes – With a low consumption of traditional cigarettes and an affinity for hand-rolled ones, and a maximum value recorded on the item that quantifies the daily ration, respondents of this type can be identified as former traditional smokers with the mention that different from Type 1/ Classic, high consumption per day, determined many to get out of the comfort zone and try 'once or twice' other types of products as well. Interestingly, among the options included, most tried sheet cigarettes, which is considered to be a strong tobacco that cannot be regularly consumed. Quantitatively – the scores show a moderate number in the trial of cigars, hookahs or pipes, three tobacco products that have are more socially

charged and considered more important than the rest, their consumption being affiliated to a certain social class or important events

Table 2.2. Socio-demographic profile of the types of respondents (% per column)

		Type 1 <i>Classic</i>	Type 2	Type 3	Type 4 <i>Eclectic</i>	Total
Gender	Masculine	53.3	65.3	78.8	89.1	58.1
	Feminine	46.7	34.7	21.2	10.9	41.9
Age categories	15 - 24 years	4.2	5.7	12.8	2.4	4.6
	25 - 39 years	19.6	21.7	30.1	10.9	19.7
	40 - 54 years	23.2	25.2	23.5	16.4	23.0
	55+ years and older	53.0	47.4	33.6	70.3	52.6
Education (age at school completion)	15 years	13.7	13.9	7.3	12.9	13.4
	16 - 19 years	43.3	42.1	26.9	28.5	41.6
	20+ years and older	39.7	38.5	54.8	54.8	41.1
	Still studying	2.6	4.8	10.0	2.7	3.2
	No full-time education	0.7	0.7	0.9	1.1	0.7
Type of community	Rural area or village	31.0	36.1	18.9	30.1	31.1
	Small/ middle town	41.6	38.1	52.0	44.1	41.8
	Large town	27.4	25.8	29.1	25.8	27.1

Source: Eurobarometer 87.1/ 2017, authors' analysis. N (valid) = 5.792

From a socio-demographic point of view, the gender difference increases considerably within this cluster, placing the male former smoker at +30.6 percent compared to the female, the registered figures defining the profile with pre-university education (42.1%) and over 55 years old, from rural areas or a small-/ medium-sized city (difference of 2% totalling 15 respondents), without identified financial problems (71.2%), the sources of income being other than a fixed salary – of the 51.8% without a job, 37.4% are retired. With a difference of 21 percent, the former typical smoker of this cluster is part of the middle class of society, being mostly 'satisfied' with his own life and 35.2% 'very satisfied'.

While the traditionalism of former smokers can be identified in clusters 1 and 2, when it comes to the eclecticism of respondents who complete the analysis, things are not as simple. With just over 10% of those targeted, the percentage cumulates the respondents from clusters 4 and 1, proving their preferences by maximum values, but in different categories. Differences and new trends also appear in the socio-demographic profile, explaining the preferences expressed.

Type 3/ Former eclectic smoker, with a predilection for experimenting with tobacco products – While cluster 4 can be identified as a *high-class* one, former consumers of this type are the definition of another type of eclecticism. With a maximum of 10 cigarettes per day, that few exceeded, it is worth noting the regular consumption of chewable tobacco or when it is ingested nasally, which has a frequency similar to the classic packed cigarettes – several times a month. With the exception of this type of tobacco and the hookah where it shows the highest frequency, this type precedes the maximum values of the other groups – with visible differences between scores, but immediately positioned. Regardless of the type of tobacco, the 226 former smokers in this cluster have tried the available products at least once.

Socio-demographically, the figures recorded in this pattern follow the trend of the previous cluster, with 78.8% being men and university students (54.8%), over 55 years old (33.6%) but also aged between 25 – 39 years old (30.1%) – the difference between the two age categories is eight respondents. Coming from a small- / medium-sized city (52.0%) and without financial difficulties (87.5%), over half of the respondents included in this typology were active on the labour market with a steady job (53.2%). The profile concludes with a high degree of satisfaction with life (55.6% satisfied and 39.6% very satisfied) and a proportion of 57.5% in the middle class of society.

Type 4/ Former eclectic smoker, with bohemian and refined preferences (high class) – With a predilection for regular monthly consumption of pipe, sheet cigarettes and cigars, this type shows a bohemian smoker with a series of clearly defined preferences, which exceed the desire of experimentation, passing into the category of hedonistic consumption. Despite the fact that this type is an eclectic one, a number of similarities can be drawn with former smokers of type 2/ Classic artisanal – they have the same aversion to chewing tobacco, since it is perceived by many as a tobacco for those from a lower social class. Instead, they preferred the pipe and sheet cigarettes, associated with those with a higher status. For them, hand-rolled cigarettes are not a habit either, their consumption being reduced to a ‘once or twice’ attempt.

Socio-demographically, this type registers the most accentuated gender difference, showing the former eclectic smoker as a man (89.1%) over 55 years old (70.3%), with higher education (54.8%) coming from a small- / medium-sized town (44.1%) and without problems in paying bills (81.3%) – 60% say they are not employed, noting that the percentage includes 54.1% retirees. ‘Satisfied’ and ‘very satisfied’ with their lives in the proportion of 91.3% (compound percentage, 50.3% and 41.0%), they are in the middle class of society (53.1%), highlighting the 15.8% of the upper part of the higher class.

Generically, the former smoker mostly identifies himself as a man over 55 years old (52.6%), with high school or even university education (41.6%, respectively 41.1%), who comes from a small-/ medium-sized city (41.8%), without problems in paying his monthly bills (70.9%), despite the fact that he does not have a job (52.1% – compound percentage, 39.4% being retired). Part of the middle class of society (50.0%), this individual declares himself ‘satisfied’ with his life (56.3%). With the exception of the approximation of the figures that refer to the education of this type of respondent, between the rest of the

percentages regardless of the variable there are accentuated differences that can reach even up to an extra 50%.

Table 2.4. Socio-demographic correlation of the tobacco consumed daily – number of cigarettes

	Gender (1 Masculine/ 2 Feminine)	Age	Type of community (1 Rural area/ 3 Large town)	Difficulties paying bills (in the last 12 months)	Life satisfaction (1 Not at all satisfied/ 4 Very satisfied)
Number of cigarettes / day	-.240** .000 5171	.216** .000 5171	-.068** .001 5169	.089** .000 5102	-.076** .000 5151

** . Correlation is significant at the 0.01 level (2-tailed).

Statistically correlating the number of cigarettes smoked daily with a series of socio-demographic items, the results fill in the previous analysis, showing a higher consumption for former smokers coming from a rural area, of older age, that tend to have financial difficulties and show some dissatisfaction with their own life (Table 2.4).

2.1 Regional trends and inequalities

At the level of the 28 studied states, figure 3 shows the distribution by country of former smokers, regardless of the type in which they were included, by k-means clustering. It is noteworthy that most respondents who have smoked up to a certain point are in Sweden (7.1%), a state that can be said to have seen a visible decrease in tobacco levels, in the analysis of current smokers, ranking in last place with only 1.0%. This trend is strongly reflected in other Nordic countries, Sweden being followed by Denmark (5.7%) and Finland (5.1%). A distribution of more than five percent of former smokers is still documented in developed countries, the Netherlands (5.6%), Germany (5.5%) and the United Kingdom (5.1%), but despite a high number of respondents in this category, Germany dominates numerically in figure 1, with 5.4% of current smokers found in the data collected from the territory. If in the previous analysis it was not possible to sketch a regional trend, this time, succeeding small states, it is mainly countries in southern Europe – Bulgaria 2.2%, Italy 2.4%, Romania 2.5% and Portugal 2.6%, as opposed to the area which has a high number of former smokers.

Regardless of the country, classic consumption is predominant, since there are states in which one of the eclectic types of ex-smokers, 3 or 4, if not both, registered 0% respondents in the sampled population – e.g., Bulgaria. This trend of high scores for cluster 1, that defines traditional consumption, visibly dominates the southern region, with the necessary mention of Poland, Slovakia and Lithuania that have high scores for type 1, the geographical proximity indicating a possible influence of consumption in the South-North chain.



Figure 3 – Distribution of former smokers in EU28

Overall, there is a low incidence of type 3, the peak being identified in Sweden where, added to the percentage of the ideal standard eclecticism of group 4, it reaches 45.9%, a value close to the 48.2% of former traditional consumers (type 1). It should be noted that the countries shown in figure 3 as having the highest percentages of the general distribution of the concerned respondents – Sweden, Denmark and Finland – also have the highest occurrence of eclectic types 3 and 4. With small exceptions in the central and Southern areas, eclectic type 4 smokers are found to some extent in each state in the studied area, with values rising from 0.7% (in Romania) to 8.4% (in the Netherlands), Denmark (21.0%) and Finland (14.3 %) which was outside the median. The same trend is also followed by type 3, with the exception of Sweden, with values per country reaching 6.1%, including seven states – of which three in the Benelux group and three in Southern, touristic Europe, that record 0%.

At the European level (20.8% of the total, 5,792), socio-demographically correlating the items that reflect the behaviour of the former smoker, comparatively, it appears that women started smoking at an older age than men, as well as smoking for both a shorter period and fewer cigarettes consumed daily. A similar trend is identified in terms of the environment of residence and the education received, those in urban areas started to smoke at an older age than rural citizens, quitting faster and comparatively, smoking fewer cigarettes daily. It should be noted that when it comes to studies, former highly educated

smokers consider electronic cigarettes safe – when we talk directly from the perspective of these devices, Europeans who have smoked for a long time and a high number of cigarettes per day do not consider vaping risk-free or safer than conventional smoking.

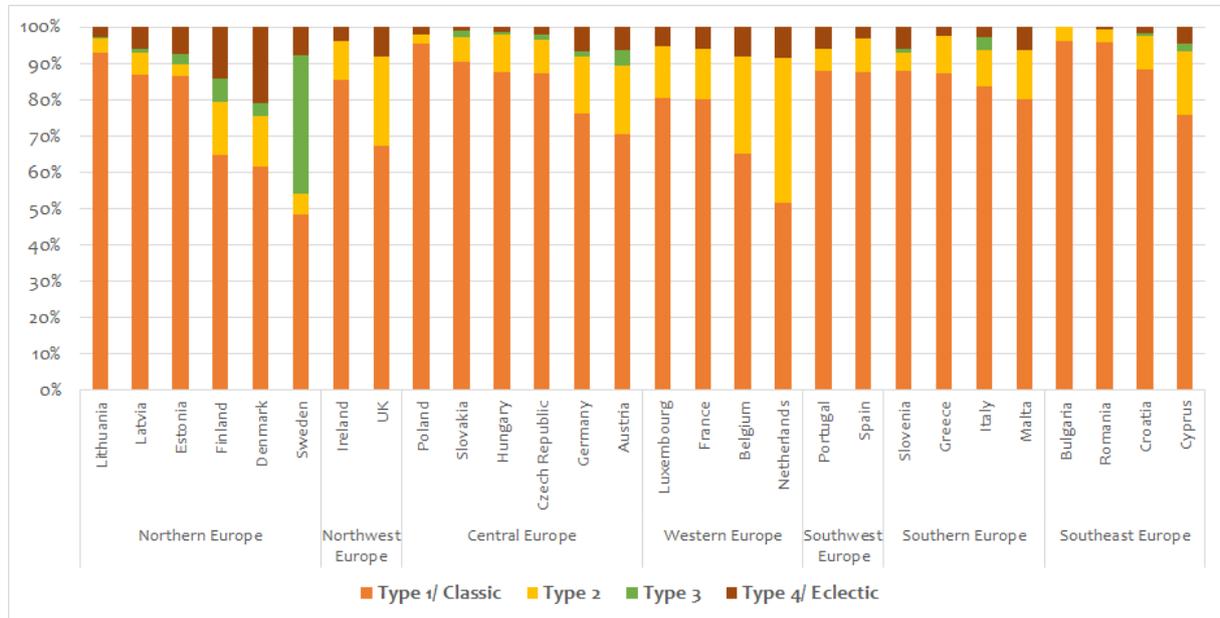


Figure 4 – Country-level cluster distribution (EU 28, Type 1/ Classic smokers regional arrangement)

Of the population sample studied in Romania, only 145 former smokers were documented, significant identified links were found in line the European trend regarding women who started smoking at an older age than men, as well as for a shorter period and fewer cigarettes per day. Similarly, those who smoked for a longer period of time also consumed a large amount of tobacco daily. At the national level, no direct causal relationship could be identified between the perception of electronic cigarettes and Romanians who have quit smoking.

Attitudes and preferences regarding electronic cigarettes

Carried in the frenzy of e-cigarettes consumption and shortly before GLO/ IQOS devices entered the market in 2017, the Eurobarometer has highlighted in the conducted research for data collection one of the most controversial matters from that time – are e-cigarettes more harmful or healthier than the classic ones? Do they harm others around you? Do they help reducing classic tobacco consumption? Is their use motivated by trend or entourage?

Out of a total of 27,901 respondents, only 435 identified themselves as users at the time of data collection (March 2017), 857 declared themselves former consumers, and 2,698 responded that they had tried ‘once or twice’ (without also specifying why they did not continue or why they gave up). Since electronic devices have changed tobacco consumption, the question that previously tackled the number of cigarettes smoked per

day has been changed in this case, following the regularity of users using electronic consumption – 62.8% daily and 23.1% weekly.

One of the European approaches to electronic cigarettes is the importance and help it can provide in the treatment of those who want to quit smoking, with the UK now wanting its regulation at the national level. Of the 25.8% of EU28 smokers, 54.4% answered that they had tried to quit (compound percentage, 15.9% in the last 12 months, 38.5% earlier), while 45.6% never tried to quit this habit. Asked how they tried to quit smoking or if they had any help in this process, within the sample of 3,812 Europeans (those who tried to quit in the last year or earlier), 15.4% resorted to nicotine medication (patches, gum and/ or inhaler) and 13.1% for electronic cigarette – of the 499 individuals, the equivalent of 13.1%, 341 used only the electronic alternative, without any other form of help or individual test (chewable/ inhaled tobacco and/ or specialized help through support groups). The socio-demographic distribution of the 341 respondents divides them into 58.3% men and 41.7% women, 32.1% from rural areas and 67.9% urban areas, with 31.6% aged between 25 and 39 years and later, in relatively equal percentages, the other age categories – 25.0% 15-24 years, 25.6% 40-54 years and 17.8% 55 years or more.

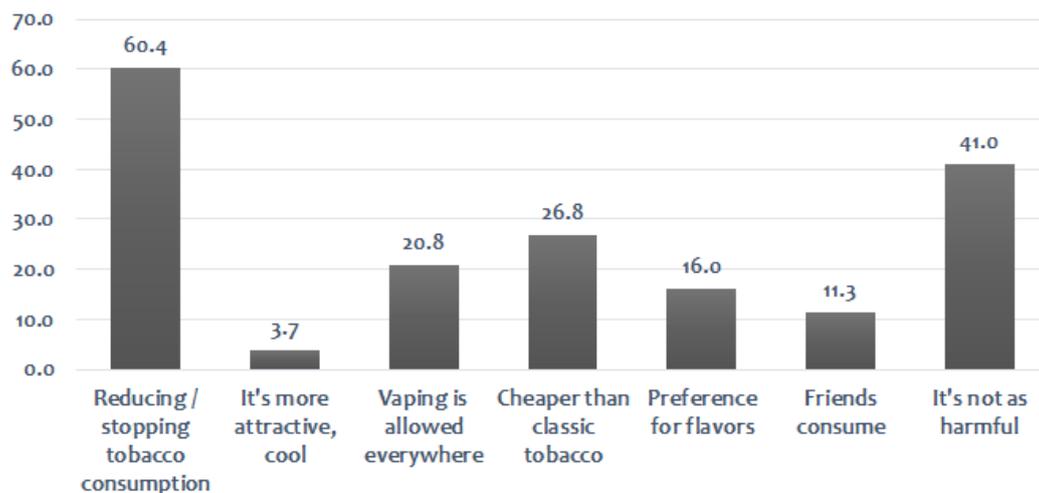


Figure 5 – Reasons for starting to use electronic cigarettes

Regarding the motivation to start smoking e-cigarettes (Figure 5), the indicated answers follow two main theories and substantiated perspectives since their appearance on the market – they help the smoker quit smoking and are not as harmful as classic tobacco. Articles and studies have emerged from both sides, with some advocating for vaping as a risk-free habit, while others have argued the danger is much more serious for consumer health. It is also worth mentioning that out of the 435 vapers at present, 41.1% have definitively given up the consumption of classic cigarettes to the detriment of smoking and 39.7% have reduced their consumption without replacing it with the electronic cigarette.

Similar to the previous analysis from this chapter, a k-means clustering was performed, taking into account only the single-answer questions regarding the series of reasons preceding the e-cigarettes consumption, the opinion on risk-free use and vaping regularity, being measured from ‘less often than monthly’ to ‘daily’. Considering the questions set, I have chosen the three-type model, to the detriment of the previous four-type model. For the variables included in the socio-demographic profile creation, the previous process from part 1 was kept. In the analysis, only current e-cigarette users were included (435).

Based on the data included in table 3.1, it appears that type 1 includes monthly vapers, admitting that electronic devices helped them to reduce (not to give up) the number of classic cigarettes they smoke, being aware of the risks implied by electronic consumption. Socio-demographically, this type of vaper is 55.0% (33) male, aged between 15 and 24 years old (36.1%, 22), with pre-university studies (49.2%, 29), coming from an urban area (mostly small- or medium-sized city – 41.7%, 25) and without a current job (44.3%, 27). (Table 3.2, annex 3)

Table 3.1 K-means cluster analysis: empirical types of current e-cigarettes users

	Type 1/ Monthly	Type 2	Type 3/ Daily
Regular consumption	1.48	3.54	3.90
Not as harmful as classic tobacco	1.33	1.57	1.59
Helps reduce/ stop the consumption of classic tobacco	3.19	3.26	1.07
% of case in each cluster	13.8% (61)	45.4% (198)	40.7% (178)

Source: Eurobarometer 87.1/ 2017, authors' analysis. N (valid) = 435

Cluster 2 shows an electronic cigarette user on a several times a week basis, that managed to reduce classic tobacco consumption this way and that does not consider vaping harmful. In this case, this e-cigarette user is male (70.2%, the largest discrepancy in gender distribution), aged 15 – 24 (19.3%), with pre-university education (48.7%), and without a current job (47.2%, compound percentage), equally belonging from rural areas (34.5%) and urban areas (34.0%) – the disparity of 0.5% is equivalent to one respondent.

The type is completed by group 3, which includes those who, through e-cigarette consumption, permanently gave up regular smoking, replacing cigarettes with daily vaping, mostly not agreeing with the harmfulness of the e-cigarette. Socio-demographically, this vaper identifies as a male (62.4%), aged 40 – 54 (37.6%), with pre-university studies (46.0%), from an urban environment (small- or medium-sized city, 45.2%), currently employed (59.3%).

3.1 Regional trends and inequalities

The small number of respondents included in this group, 435, makes the distribution of the three types of vapers by countries unrepresentative, not allowing an exhaustive analysis like the previous ones. Similar to the sales market and investments in well-known brands, the distribution of the current 435 vapers reflect daily reality – nationally, the United Kingdom records 15.6% of respondents, France 10.2%, and Austria and Germany reach 6.2%, with the lowest values in Croatia, Sweden, Slovakia, Bulgaria and Italy – less than 1%. (Figure 6 – A)

Socio-demographically correlating the European level (EU28) to the items regarding the safety of electronic cigarettes, regular consumption, the recorded effects and the motivation to start using them among the group of 3,992 individuals who responded that they currently use or have done so at some point, the following statistically significant results emerged – women and young people generally consider smoking to be a safer, risk-free habit, with the latter being seen as helping to reduce/ stop their use of traditional tobacco (without being a clear reason for the onset of vaping).

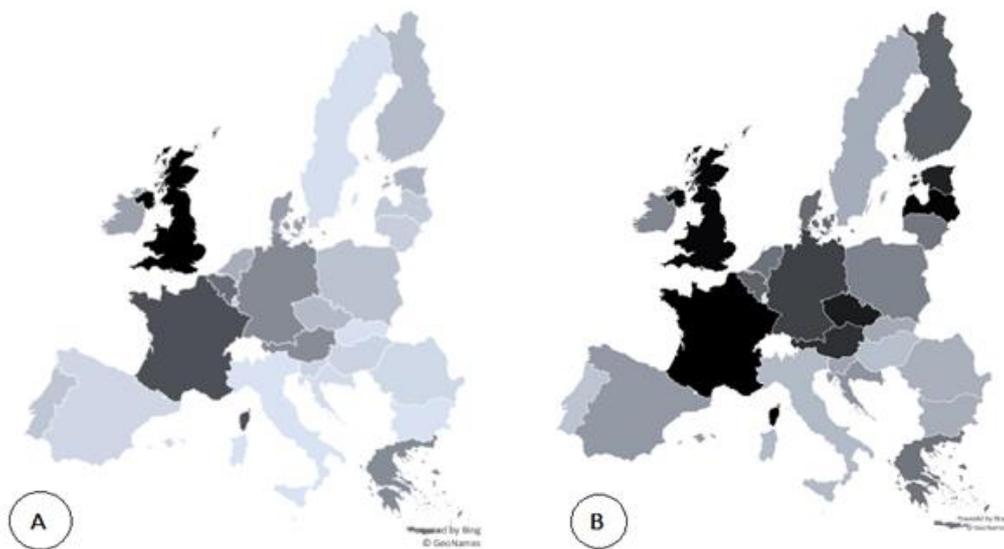


Figure 6 – Distribution of e-cigarettes users in EU28 (A – current vapers; B – current and former vapers and people who experienced several times)

Compared to the older ones, the younger ones started consuming electronic cigarettes through their friends, entourage and for the pleasure of available flavours ($p = 0\%$), while at the opposite side, are the older ones who started vaping in order to reduce/ stop the consumption of classic tobacco and with the premise that they are safer than generic smoking. The same pleasure for vaping is found in those in urban areas, in turn, those in rural areas consider ENDSs safer and risk-free. Strictly correlating the reasons for using the e-cigarette, Europeans who started smoking due to the entourage did so on the

grounds that it is a cool habit, drawn by the number of flavours available; those who started from the idea that electronic cigarettes were cheaper than classic tobacco had as a starting point the fact that they could use it anywhere, considering it even safer than generic cigarettes.

Conclusion

The study included in this chapter presents the perception of Europeans in relation to the use of electronic cigarettes and their preferences for current tobacco products, using Eurobarometer data 87.1 / 2017 – research with an instrument applied by the Leibniz Institute to 27,901 respondents aged 15 and over 15 years old, in 28 of the Member States of the European Union. The chapter was divided into three independent analyzes, each focused on a targeted group of respondents (current smokers, former smokers, e-cigarette users), typologies were defined based on preferences and attitudes expressed, the final classification grouped individuals as follows: Europeans currently smoking into four sub types, from the classic smoker, a regular of packed cigarettes, to the eclectic one, with multiple preferences including pipe, hookah, cigar and leaf cigarettes; following the same structure, a similar typology emerged for former smokers, the final classification identifying the European population as classic smokers, who complied with the generic form of tobacco use and even bohemian preferences, with high pipe consumption. The analysis and classification focused on the preferences and motivations of Europeans who use or have used electronic cigarettes in the past, from this a typology composed of three types was established, vapers ranging from those with sporadic use, those aware of the risks of use to those who smoke daily, not taking into account the possible harmful effects to which they are subjected, and those who definitively giving up the classic cigarettes to the detriment of the electronic one.

Socio-demographically, each typology focused on gender, age, education, environment of residence, as well as socio-professional status, possible economic problems encountered, social class and even their own degree of satisfaction with life. A general socio-demographic profile was drawn up for each analysis: (1) the current European smoker is predominantly male (57.5%), aged 25 – 39 (29.8%), pre-university education (52.5%), living in an urban environment (39.2%) – without financial difficulties in the last 12 months (52%), is in the middle social class (42.8%) and is 51.0% employed. (2) The generic European who smoked but no longer smokes is also a man, this time aged over 55 (52.6%), with high school or even university education (41.6%, respectively 41.1%), who comes from urban areas (41.8%), without declared financial difficulties (70.9%), despite the fact that he does not have a job (52.1% – compound percentage, 39.4% being retired) – part of the middle class (50.0%), he says he is 'satisfied' with his life (56.3%).

A series of statistical analyzes were processed at the European level (EU28) compared to the general trend identified in Romania. At the time of data collection (March 2017) there were 28.0% Romanian smokers, with indications that women started smoking later than men, consuming fewer cigarettes daily than them. As well as this, smokers in urban areas, in Romania consider smoking safer than classic tobacco, and people with a

higher education level smoke more cigarettes on a daily basis than the rest (other than EU28). A somewhat similar trend could be identified in Europeans who smoked but then quit, with data showing that women once again started smoking at an older age than men, thus smoking for a shorter period of time and a smaller daily amount. Similar results appeared in the residential environment and in the degree of education, those in urban areas starting to smoke at an older age than rural citizens, giving up faster and comparatively, smoking fewer cigarettes daily than them – it should be noted that those with a higher education considered electronic cigarettes risk-free. Regarding the behaviour of European vapers, compared to those who are older, young people began to consume electronic cigarettes influenced by the entourage and for the pleasure of available flavours, while older people began with the aim of reducing / stopping the consumption of classic tobacco, on the premise that they were a safer option than generic smoking. When linking and establishing a trend for the reasons that made Europeans use electronic cigarettes, two categories emerged: those who started smoking due to the entourage did so on the grounds that it was a cool habit, drawn in by the quantity of available flavours and then those who started from the idea that electronic cigarettes were cheaper than classic tobacco, believing that they could use it anywhere, and under the impression that they were even safer than the generic cigarette.

The recorded results and the defined typologies can be of use for the fields related to the tobacco industry, from market research to promotional campaigns or even prevention, with messages focused and addressed towards the clearly defined target groups.

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Appendix 1

Table 1.3. Socio-demographic profiles of respondent (in-cluster, column % per trait categories)

		Type 1 Classic	Type 2	Type 3	Type 4 Eclectic	Total
Difficulties of paying bills	Most of the time	13.7	22.1	25.1	6.6	15.4
	From time to time	32.3	36.7	33.5	29.1	32.6
	Almost never/ never	54.1	41.2	41.3	64.2	52.0
Occupation of respondent	Self-employed	6.8	6.2	7.0	9.9	7.0
	Employed	55.1	39.2	41.1	50.1	51.0
	Never paid work	38.1	54.6	51.9	40.1	41.9
Social class self- assesment	The working class	32.3	44.8	37.6	21.0	33.4
	The lower middle class	18.3	20.7	20.7	15.4	18.6
	The middle class	44.7	30.8	37.2	51.3	42.8
	The upper middle class	4.2	2.8	3.8	10.9	4.6
	The higher class	0.5	1.0	0.7	1.3	0.6
Life satisfaction	Very satisfied	18.7	19.5	19.9	28.1	19.8
	Fairly satisfied	58.0	50.1	49.4	58.6	56.1
	Not very satisfied	19.1	21.4	22.5	10.8	19.0
	Not at all satisfied	4.1	9.0	8.2	2.6	5.1

Source: Eurobarometer 87.1/ 2017, authors' analysis. N (valid) = 7.185

Table 1.4. Socio-demographic distribution of current smokers according to the number of cigarettes smoked daily (row % per trait categories)

		Less than 1 cigarette	1 - 5 cigarettes	6 - 10 cigarettes	11 - 20 cigarettes	21 cigarettes or more
Gender	Masculine	1.2	10.6	25.6	50.8	11.8
	Feminine	1.5	19.3	33.5	40.4	5.2
Age categories	15 - 24 years	2.0	25.4	33.3	34.7	4.6
	25 - 39 years	1.6	14.1	30.2	47.2	6.8
	40 - 54 years	1.1	11.7	25.8	49.9	11.5
	55+ years and older	1.0	11.3	28.6	47.8	11.2

Source: Eurobarometer 87.1/ 2017, authors' analysis. N (valid) = 7.185

Appendix 2

Table 2.3. Socio-demographic profiles of respondent (in-cluster, column % per trait categories)

		Type 1 Classic	Type 2	Type 3	Type 4 Eclectic	Total
Difficulties of paying bills	Most of the time	3.2	2.7	7.6	6.6	7.0
	From time to time	15.5	9.8	23.3	22.2	22.1
	Almost never/ never	81.3	87.5	69.1	71.2	70.9
Occupation of respondent	Self-employed	7.2	8.3	9.3	9.3	7.5
	Employed	40.6	39.9	53.1	30.6	40.4
	Never paid work	52.2	51.8	37.6	60.1	52.1
Social class – self-assessment	The working class	17.4	21.7	26.7	26.8	25.9
	The lower middle class	12.3	13.1	15.8	15.4	15.4
	The middle class	53.1	57.5	49.7	47.8	50.0
	The upper middle class	15.8	7.7	6.8	9.3	7.8
	The higher class	1.4	0.0	0.9	0.7	0.9
Life satisfaction	Very satisfied	41.0	39.6	27.3	35.2	29.6
	Fairly satisfied	50.3	55.6	57.4	53.2	56.3
	Not very satisfied	7.4	3.6	12.8	9.4	11.7
	Not at all satisfied	1.3	1.3	2.6	2.2	2.4

Source: Eurobarometer 87.1/ 2017, authors' analysis. N (valid) = 5.792

Appendix 3

Table 3.1. Socio-demographic profiles of respondent (in-cluster, column % per trait categories)

		Typ 1 Monthly	Type 2	Typ 3 Daily	Total
Gender	Masculine	55.0	70.2	62.4	64.9
	Feminine	45.0	29.8	37.6	35.1
Age categories	15 - 24 years	36.1	29.3	6.2	20.8
	25 - 39 years	24.6	27.8	33.7	29.7
	40 - 54 years	19.7	22.7	37.6	28.4
	55+ years and older	19.7	20.2	22.5	21.1
Education (age at school completion)	15 years	1.7	6.6	10.3	7.4
	16 - 19 years	49.2	48.7	46.0	47.7
	20+ years and older	35.6	25.4	40.8	33.0
	Still studying	13.6	18.8	2.9	11.6
	No full-time education	0.0	0.5	0.0	0.2
Type of community	Rural area or village	28.3	34.5	28.8	31.3
	Small/ middle town	41.7	34.0	45.2	39.6
	Large town	30.0	31.5	26.0	29.0
Occupation of respondent	Self-employed	3.3	13.1	9.6	10.3
	Employed	44.3	39.7	59.3	48.3
	Never paid work	52.5	47.2	31.1	41.4

Source: Eurobarometer 87.1/ 2017, authors' analysis. N (valid) = 435