Analysis of E-cigarette market

a) Market review

As of January 2014, there is 466 brands of e-cigarettes in the world[i]. Their number are rising quickly (10,5 brands per month). In 2013 $3 billion was spent on it globally. The sale of E-cigarettes is estimated to increase by a factor of 17 by 2030[ii]. We can safely say it's a rising market. The most popular brands in Belgium are Aspire (Chinese brand), dotmod (USA), Eleaf By Ismoka (Chinese), asmodus (USA) Innokin (Chinese), Joyetech (Chinese), and Vaporesso (Chinese)[iii][iv]. E-cigarettes are usually bought in bulk from China and sold rebranded in Europe, although it is possible to buy them with their Chinese brands. In some cases, e-cigarettes are produced in China under the specifications of a European brand (e.g. Gower Enterprises' Halo e-cigarettes)[v]. We can also add that The Netherlands, Belgium neighbor is a hub for the rest of Europe. Vendors of electronic cigarettes are operating as a hub, re-selling most of the e-cigarettes they import from China to the rest of Europe. There is also a few American brands in the Belgian market but Chinese brand are dominant.
We can also note that a big player, Juul, just arrived 17th September in Belgium. They are very controversial as they are criticized for focusing the young customer and spreading some non-proven claims about e-cigarette (like saying it's 99% more healthy than cigarette). They represent 75% market share of USA, so they will surely impact once they settle in. [vi]

The substitutes of E-cigarette are boxed cigarette, hand-rolled cigarettes, cigars, cigarillos and pipe. There are many complements to e-cigarette, that's also why it's a very interesting market. We can count the e-liquid (used for flavoring and recharging the e-cigarette) which is the main complement and needs to be bought often. There is also battery, clearomiser (allow the e-liquid to be converted into vapor), cleaning liquid and tools, accumulator, adaptor, storing kit, etc… [vii]

b) Belgium people smoking habit

25% of people in Belgium smoke [viii] and 19% are ex-smoker. Among Belgium smoker (either daily, weekly or monthly) 79% smoke boxed cigarette, 42% hand-rolled cigarettes, 5% cigars, 6% cigarillos and 1% pipe. The averaged 14,1 cigarette a day. Concerning E-cigarette, Belgian's users are very few as shown below.(Keep in mind that the result of the

Eurobarometer are based on the answers of 1009 Belgian people representative of Belgian population, the interviews were realized by TNS Dimarso.)[ix]

		You currently use electronic cigarettes or similar electronic devices (e.g. e-shisha, e-pipe)	You used them in the past, but no longer use them	You tried them in the past but no longer use them	You have never used them	Don't know
	BE	1%	3%	5%	90%	1%

It's a great opportunity for E-cigarettes brand to try to capture more of that market share belonging to boxed cigarettes for example, there is a big potential growth.

c) Target customers

The target customers are usually young man and women. Although smoking is more prevalent in males population. The reason why is because the earliest the consumer is starting, the more chance he has to stay addicted and also he can give potentially more profit to the company as he will live longer compared to older customer. Looking closely to Juul marketing strategy, they chose very carefully their design (the 2 founders are designers and one of them worked at apple), their e-cigarette looks like an USB key. Their key marketing message is "our product will help you to stop smoking". However they are extremely popular among teenager (which probably didn't start smoking yet) and they actually started by focusing the young customer trough social network campaign (but they removed these campaign after people started complaining). We should note also that the concentration of these e-cigarette contain 59 mg of nicotine per liter which is much more than other e-cigarette (usually between 6 and 30 mg). Leading to customer getting addicted in a quicker manner. However in Belgium they have to comply with UE regulation which limit the maximum amount of nicotine per liter to 20.

Looking closely at 2014 EU statistics concerning people who are using or tried E-cigarette (in nicotine and nicotine free-form) below:

	Nicotine containing electronic cigarettes or similar electronic devices	Nicotine free electronic cigarettes or similar electronic devices
EU28	35%	14%
Gender		
Man	39%	13%
Woman	31%	15%
Age		
15-24	29%	15%
25-39	34%	15%
40-54	39%	12%
55 +	40%	17%
Age 15-24		
15-17	23%	8%
18-24	30%	15%
Smoking status		
Smokers	37%	13%
Stopped smoking	42%	20%
Never smoked	11%	14%
Non-Smokers	31%	17%
Tried to quit smoking		
Yes	40%	14%
No	29%	11%

(p 90, 153 and 182,183 of the report for more details) We can see that man use it more when it comes to the e-cigarette with nicotine, while women use it more for the ones without nicotine but the difference is pretty small. We can also notice that the older the respondent are, the more likely they are to use nicotine-free product compared to younger respondent. Now let's take a look to the reason why customer decide to start using e-cigarette in Belgium:

QC12. You said that you use or have used or tried electronic cigarettes or any similar device in the past. How important was each of the following factors for starting?
Answer: 'Very important'

	To stop or reduce tobacco smoking	To be able to smoke in places where tobacco smoking is not allowed	You considered them attractive, cool or fashionable
BE	44%	25%	4%

In the Belgium market, people want mostly to reduce or stop tobacco, it's another factor that could help designate the target customer being smokers. It's also in link with Juul main marketing message.

d) Factors that affects consumer's demand and price elasticity of demand for vaping

According to the report and table shown below for Belgium:

QC11. What are the factors you consider important in your choice of electronic cigarette or any similar device (e-shisha, e-pipe)? (MULTIPLE ANSWERS POSSIBLE)

	The flavour	The price	The amount of nicotine	The type of electronic cigarette (disposable, rechar-geable with a cartridge, refillable with liquid)	Marketed health claims	The brand	The design or shape of the electronic cigarette or any similar device and its case	The packaging	Other (SPONTA-NEOUS)	None (SPONTA-NEOUS)	Don't know
BE	52%	41%	32%	22%	20%	6%	8%	6%	1%	17%	3%

We can clearly see that the flavor of the e-cigarette is an important factor concerning the choice of electronic-cigarette. In second position the price, in third position the amount of nicotine, and in fourth position and fifth position very closely there is the type of e-cigarette and the marketed health claim.

We can easily see which factors could impact more the price elasticity of demand, with a key emphasis on flavor and amount of nicotine. Of course the more nicotine the e-cigarette will contain, the more addictive it will be, however in Belgium it's limited to 20 mg per liter.

We can also notice that the brand barely impact the choice (6%) while the brand is a key factor when choosing typical tobacco (60%, being the second most important factor!) as seen below:

	The taste of tobacco		The price		The specific brand		The levels of tar, nicotine and carbon monoxide		The specific tastes such as menthol, spicy, fruity or sweet		The design or shape of the cigarette (e.g. slim, colour, capsule)*	The packaging	
BE	83%	-1	54%	+6	60%	-15	34%	+4	24%	+3	13%	13%	-3

This could be explained by the e-cigarette market not being mature enough and having his environment still very volatile (new regulations, continuous stream of new brands and very

small amount of customer yet). It's the time for the brands to shine and capture a steady market share and focusing on customer loyalty.

Returning to the reason why people start e-cigarette (44% of Belgian e-cig user say they started e-cigarette because it's very important to them to stop/reduce their tobacco usage), we can look upon if they actually found it effective or not.

QC13. You said that you smoke or used to smoke tobacco but also use or used electronic cigarettes or any similar device. Did the use of electronic cigarettes or any similar device help you to stop or reduce your tobacco consumption?

	Yes, you stopped smoking tobacco completely	Yes, you stopped smoking tobacco for a while but started again	Yes, you reduced your tobacco smoking but did not stop	No, you did not reduce your tobacco smoking at all	No and actually you increased your tobacco smoking	Don't know
BE	12%	6%	19%	58%	5%	0%

As you can see it worked well for 18% of them, at least temporarily. However for 63% of them, it didn't help. So we can assume that e-cigarette are helping to stop tobacco but it isn't that effective, so maybe brands could try to find ways to help consumer stop consuming tobacco.

Here is the perception of Belgian concerning the e-cigarette being harmful or not to the health.

QC8. In recent years electronic cigarettes or e-cigarettes have been increasingly marketed in Europe. Do you think that they are harmful or not to the health of those who use them? + evolution compared with EB77.1 Feb.-Mar. 2012						
	Yes		No		Don't know	
BELGIUM	53%	+17	31%	-10	16%	-7

We can clearly see a trend from 2012 with more and more people seeing it as harmful for the health, so this suggest that the demand for E-cigarette can get lower if it continues in that direction. We can also link this to recent actuality with Trump administration considering to ban the flavored e-cigarette. However it's not because people think it's harmful that won't use it (see alcohol or cigarette for example). Here below are some aspects listed by cigarette customers where the e-cigarette companies can try to improve their image.

QC6. Which of the following characteristics do you consider indicate that a cigarette brand is less harmful than others? (MULTIPLE ANSWERS POSSIBLE)

	The tar or nicotine levels indicated on pack	Cigarettes without additives	Cigarettes labelled as "organic" or "natural"	Specific terms in the brand's name, such as "silver" or "blue"	Menthol flavour	The light colour of the pack	The shape and size of a cigarette, e.g. slim cigarettes	Other taste or flavour, such as a spicy, sweet or fruity flavour	The shape or texture of the pack (e.g. slim pack or soft pack)	Other (SPONTA-NEOUS)	None (SPONTA-NEOUS)	Don't know	At least one element related to a specific tobacco taste	At least one element related to the shape of the tobacco pack\ciga-rettes	At least one element related to the infor-mation on the packet
BE	37%	19%	14%	7%	7%	9%	7%	6%	3%	2%	31%	9%	11%	15%	52%

This mainly tell us that the tar or nicotine levels and mentioning cigarettes without additives helped improving health image of cigarette so perhaps this could work for e-cigarette.

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i https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4078673/

ii https://www.mordorintelligence.com/industry-reports/europe-e-cigarettes-market-industry

iii https://e-liquide-shop.com/kit-box-mod-33

iv https://www.vapetime.be/machine

v Executive Agency for Health and Consumers Specific Request EAHC/2011/Health/11 for under EAHC/2010/Health/01 Lot 2 Economic analysis of the EU market oftobacco, nicotine and related products Revised Final Report 20 September 2013

vi https://www.rtbf.be/info/societe/detail_juul-l-e-cigarette-au-parfum-de-scandale-debarque-en-belgique?id=10316481

vii https://e-liquide-shop.com/kit-box-mod-33

viii Two-year trends and predictors of e-cigarette use in 27 European Union member states. Filippos T Filippidis, Anthony A Laverty, Vasiliki Gerovasili, Constantine and Vardavas

ix Special Eurobarometer 429. ATTITUDES OF EUROPEANS TOWARDS TOBACCO AND ELECTRONIC CIGARETTES REPORT. Fieldwork: November-December 2014. Publication: May 2015