



# HALMSTAD UNIVERSITY

School of business and engineering

## The Olfactory Experiential Marketing Online



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Bachelor Dissertation in Business Administration and Marketing – **Abstract**

**Title:** The olfactory experiential marketing online

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**Year:** 2014

**Purpose:** The aim of this thesis is to show how the olfactory experiential marketing online impacts on consumer's minds and more precisely on the generation Y's mind. Since the market became cluttered with advertisings, this new technology not officially launched can offer a wide range of new strategies for the companies.

**Method:** To write this thesis, we used academic articles, books, literature study and also other data such as internet. We also made a questionnaire in order to answer to our research question that we spread throw the social network.

**Results:** According to the results collected in our questionnaire, consumers can feel that the smell has an impact on their minds and are willing to try the new technology using the smell via the internet. It also reveals that the olfactory experiential marketing online would help them to make choice online and would help them also purchasing online.

**Keywords:** Experiential marketing online, generation Y, the experiential marketing, the sensory marketing, consumer behavior and purchase decision

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*“I hear and I forget. I see and I remember. I do and I understand.” Confucius*

## **1. Introduction**

In this first part, we are explaining in the background the basis of the marketing and how this sector is moving, and so on, explain the problem of our subject. Then, we are introducing the purpose of our thesis, and the research question in order to explain why we are doing this study. Finally, in the last part, we are presenting the delimitations and the structure of this dissertation.

### *1.1 Background*

According to the Law (2009), trade is the action to sell goods and/or services in order to make profit in exchange. In order to sell those products better, companies appeal to the marketing service. Indeed, marketing's aim is to promote and sell one company's product or service (Devyani Rohatgi, 2011). Porter (1980) shows in his theory concerning the competitive strategy that three major strategies exist for the companies to differentiate themselves from the competitors: the differentiation, in which companies find out their core competencies to make a difference; the overall cost leadership, to make a difference by the costs; and finally the focus, in which a company only chooses one segment of the population, called target, to sell his product. Since then, the companies have tried to differentiate themselves from their competitors using different strategies which turned the market cluttered and confused the customers by all the products and advertisement available on the market (Devyani Rohatgi, 2011). Devyani Rohatgi (2011) also adds that the crowded market made the customers tired of those adverts and they became lost between all companies' advertising. Aware of the changes, the marketers tried to find a new way to attract the customers such as other adverts and innovation on their products but also by using experiential marketing. That kind of marketing makes the customers to have experiences with the brand (Urquhart Ross, 2002 quoted in Chou You-Ming, 2010). Those experiences allow the consumers to experience their physical and emotional feelings through their five senses which are sight, touch, taste, smell and hearing (Urquhart Ross, 2002 quoted in Chou You-Ming, 2010).

Nowadays, the companies try to offer the best brand experience to their customers. The aim of it is to differentiate their brands and their products from the other companies and also to entertain the customers in creative ways (Devyani Rohatgi, 2011).

Granitz and Koerning (2011) mention that in order the company to stay connected with the customers and to reach them more easily, the experiential marketing online have been used more and more (Granitz, Koerning, 2011). Actually, for Liu, C, Ching, R K., Chen, J, Luo, M M, (2010), experiential online marketing is the most effective and efficient way to generate consumer interest. Indeed, it creates a kind of “unparalleled experience” and so on, acts on a different way on the customers’ minds. But, for the customers, that kind of marketing is only based on two senses, which are the visual and the hearing senses instead of five for the traditional experiential marketing. Finally, the use of technology has become common by the marketers who make it hard to set up new ideas, to be original and stimulate customer’s senses.

### *1.2 Problem*

As described above, marketing has undergone many changes. Nowadays, the experiential marketing gives the opportunity to the brands to make the customers having an experience and create a social relationship (Widdis, P. 2001). It has also been expanded in the virtual world via internet, in order to give new ways and more opportunities for the companies to differentiate themselves from the competitors (Liu, C, Ching, R K., Chen, J, Luo, M M, 2010). The problem now with the experiential marketing as well as the marketing online, is that the market is stuck and the companies cannot differentiate themselves and so, cannot reach their consumer well (Devyani Rohatgi, 2011). Also, by using the experiential marketing online, the companies are reducing the experience with only two senses which are the view and the hearing. Then, the question the companies can ask to themselves now is how would the adding of another sense in the experiential marketing online can impact on the customers’ minds ? How would they answer to the sense online ?

### *1.3 Purpose*

In order to find a solution to the problem we have presented just above, we will focus on one new technology which can be exploited by the companies to reach the customer and innovate: the smell online. Indeed, as the experiential marketing online offers the possibility for the company to reach the customer only with two senses, this new technology will enable the companies to reach the customers through another sense, the smell. The specificities of olfactory memory (memory intense odor) allow brands to convey their identity. Regarding to Brian Morean, (2007), smell has a strong emotional impact, linked to the limbic system that keeps our memories, it raises feelings buried since childhood and therefore influences the perception of the product by the consumer. As this is a very new sector, it is totally unknown and not very exploited yet and we don't know how the customer can respond to this. So, our research question is how the consumer perceive the olfactory marketing online ? Thank to his perception of the smell online, we will be able to know if this marketing tool may impact his buying behavior.

So, the goal of our research is to know how the consumer is perceiving that kind of marketing and if thinks that would help him in his buying behavior. Thanks to that, we will be able to know if this new technology would give more opportunities to the companies to reach their customers better.

### *1.4 Delimitations*

As the topic of this thesis is really huge, some delimitation has to be set. First of all we focus on the consumer side because we are studying the impact of the olfactory experiential marketing online on their minds. According to this last point, the **experiential marketing online** concept will be developed as well as the olfactory marketing but, staying focused on the **smell** only. Indeed, our study consists only to know how the olfactory sense impacts on the minds and not the other senses. The other senses will not be touched because they are already used in the experiential marketing online. Then, it is essential to talk about the experiential marketing online because, with all the news technologies, it became something inevitable to create a link and a brand experience with the customer.

### *1.5 Structure of the thesis*

In this thesis, we are going through many concepts concerning the experiential marketing, the consumer behavior, the different strategies existing, the generation Y, and some others. This theoretical part is the frame of references. At this end of this one, some hypothesis are detailed, in order to find an answer to our research problem. Then, the methodological part introduces the research design, the sample and how our research will be administrated. The third part is the “empirical study” in which we are explaining more about our data collection and we are presenting all the data collected. Finally, we end with an analysis of the data and make a connection with the theories. After that, we are able to answer our research question and determine which is right and why.

## **2. Frame of reference**

The aim of this second part is to define all the main concept in order to understand better our subject. Theories have been found in former researches and will help us to explain our main subject and the key points of this one.

### *2.1 The experiential marketing : Basis and strategies*

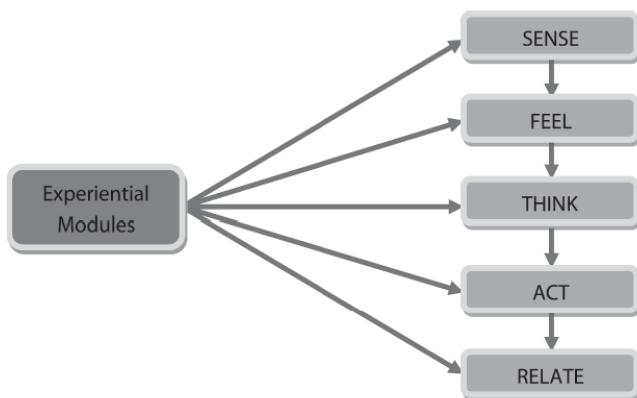
#### 2.1.1 The frame concept

When traditional marketing's boundaries have been reached, the experiential marketing takes place. To make a comparison between both marketing, we can define these two concepts as following.

According to Devyani Rohatgi (2011), traditional marketing stay only focused on the product and, so on, marketers are trying to sell this one by pointing out its characteristics. Rational customers are the main target of the traditional marketing (Bernd Schmitt, 1999). The behavior of that kind of customers is predictable and can be influenced directly by external factors (Steven M Shugan, 2006). As those customers are more thinking before buying and are more reasonable, they just buy the product for what it is (Devyani Rohatgi, 2011). This way, the traditional marketing just needs few techniques to make the product known, such as giving analytical information for example (Devyani Rohatgi, 2011). Bernd Schmitt (1999) explains also that the main heart of the brand is missing in the traditional marketing. Indeed, as it is just focusing on the principal features of the products, the affective, cognitive and sensory side of the brand are put aside.

To compare, the experiential marketing represents a kind of communication between both companies and customers which is raising the customer interest for the product and the brand as well as its customer value (Shaz Smilansky, 2009). Ming-Shing Lee, Huey-Der Hsiao and Ming-Fen Yang (2010) add that the experiential marketing is fixing an “unforgettable memory or experience in consumers’ mind”. Experiential marketing is an added value for a company and is bringing many advantages : differentiation from the competitor, create a relationship with all its customers, attraction of new customers and the strengthening of the former customers, making them loyal (Puti Ara Zena, Aswin Dewanto Hadisumarto, 2012). According to Schmitt (1999) , the experiential marketing main

characteristics can be described in four points. First of all, it is, of course, focusing on the consumer experience. A good perceived experience is increasing the customer value (Pine and Gilmore, 2001). Also, an experience has a direct impact on the consumer behavior, raising directly his *“physical and emotional feelings”* (Urquhart Ross, 2002, quoted in Chou You-Ming, 2010). The second main characteristic of the experiential marketing is the focusing on consumption as a holistic experience. P. H. Matthews (2007) argues that the holistic concept is the fact to take a situation as a whole and not just one characteristic of this situation. In order to make it clearer, when using experiential marketing, marketers are not just selling one mascara for example, but *“how a woman is more pretty with makeup”*. The third characteristics of the experiential marketing is that *“customers are rational and emotional animals”*, meaning that a simple feeling or emotion can change the rationality of one customer (Schmitt, 1999). Finally, the last characteristic is that the techniques of experiential



**Figure 1.** The experiential module elements (Schmitt, 1999, quoted in Puti Ara Zena and Aswin Dewanto Hadisumarto, 2012)

marketing are eclectic, which means that all the tools used in the experiential marketing are diversified and have no boundaries.

Schmitt (1999) has also defined what is called *“Strategic Experiential Modules”* (cf. Figure 1). Those modules represent the five different kind of experience a customer can encounter. The *Sense experience* is providing an experience based on the five senses

which are the smell, sight, sound, taste and touch. Then, the *Feel experience* will develop an emotion in the consumer’s mind and/or body and so on, create an affection toward the product and/or the brand. The third one, the *Think experience* is pushing the customers to think by creating a debate, a surprise or a problem and so, create an interest for the customer. The *Act experience* is giving a physical experience, like for example trying a product and see all the possible options. The last element is the *Relate experience*. This one is a mix of all the four first elements and allows the consumers to have a self-improvement.

2.1.2 The experiential marketing strategies

Smilansky (2009) describes a process for the marketers to know how they have to reach their consumers and promote the product. This process is the base of all kind of marketing and so on, is also the base for the experiential marketing. According to Smilansky (2009), this process can be described in four points, as following:

Key – Point	Definition
<b>Awareness</b>	Kent (2007) says: <i>“The state of being fully conscious of pertinent stimuli and really experiencing a task or situation.”</i> . To have the attention of the customer
<b>Interest</b>	Doyle (2013) says: <i>“An indicator of the potential customer’s disposition towards the product or service”</i> .
<b>Desire</b>	Smilansky (2009) says: <i>“Convince customer that they want the product or service and that it will satisfy their needs”</i>
<b>Action</b>	Deverson & Kennedy (2005) say: <i>“The fact or process of doing or acting: demanded action”</i>

In accordance with this process, experiential marketing have to make the customer’s aware, interested, desirous and, finally, make them act. To this, different main techniques and tools are used. According Smilansky (2009), the best way to reach the consumers and create a relationship via the experiential marketing is to focus on one the following points:

<b>Service</b>	Provide an added-value to the customer ex: delivery
<b>Theater</b>	Create a scenario to make the customer knowing the brand
<b>Research</b>	Furnish qualitative and quantitative research in the campaign
<b>Adverts</b>	Make the consumer closer to the brand and make the brand a part of their lifes
<b>Televised/Broadcast</b>	Inform the customer of the brand life via TV, radio, etc
<b>Entertainment</b>	Offer an activity like music festival, fashion show, etc
<b>Game</b>	Create a memorable and fun experience with the brand and/or other customers

<b>Interactive technology</b>	Increase interaction and stay connected with the customers
<b>Education</b>	Teach something to the customer in any points
<b>Set</b>	Attract with good environment, good packaging, new concept store..

## *2.2 The online marketing and the strategies*

The use of colors, ergonomics and sound are inevitable for online marketing but not sufficient; Indeed, Experiential marketing is not based only on the five senses, it is now necessary to apply the consumer experience on the internet. It is necessary to animate its website and invite consumers to participate, to try the experience. (Alexandre Faburel, 2012)

Regarding to Alexandre Faburel, (2012) The arrival of the video, 3D, augmented reality, holograms bring new development opportunities, new ideas to implement an interaction between the brand and the consumer and create a real relationship. Although the first impression is often the right, the last impression is very important, we must impress the consumer gradually in order to make him satisfied. More the experience is intense, more the individual acquires affection for the brand; a device is good when it promises little and surprises strongly.

## *2.3 The multisensory strategy : focus on the olfactive sense*

### *2.3.1 The sensory marketing*

Merchandisers have now understood the power of developing a customer experience based on the five senses. Nowadays, so many stores renounce to overuses mass media advertising and success to distinguish an original retail packaging, easily identifiable, giving the consumer a feeling of exclusivity. (Celia Bass, 2010.)

Regarding to Celia Bass, (2010), the sensory marketing stimulates the unconscious areas of the potential customer's brain via the human five senses. In fact, modern companies invest astronomical amount of money in «neuromarketing» scientific researches. The creativity of brands is now unlimited to stimulate consumers and make them experience the brand. Indeed, many innovative concepts are used such as (lighting, colors, store layout, dissemination of

odors ...) to attract the buyer to participate in its individual welfare, create value and trigger a purchase.

### 2.3.2 The multi-sensory marketing

Because of a competition increasingly fierce, and the strong growth of low-cost and hard discount offers, multi-sensory marketing is now the key point to success the differentiation from competitors. Nowadays, it is essential to provide a multidimensional experience and a real comfort to customers. Sensory marketing is then characterized by an interactive marketing at the emotional level that puts the consumer in total immersion in the universe of the brand (Audrey Dumortier, 2014).

Major brands now add to the visual impact of their packaging, some tactile and olfactory effects in order to attract the consumer and capture his attention. Polysensoriality offers to the consumer an enriching experience, centered on emotions and more richest in sense (Audrey Dumortier, 2014).

Whether it is online or in a store, the consumer is immersed in a world of consumption where are mixed sound and light atmosphere with pleasant odors (still missing online); everything is done to make these moments of shopping, moments of relaxation and fun. (Audrey Dumortier, 2014)

### 2.3.3 The five senses of sensory marketing

#### **- Sight marketing**

Regarding to Morel David (2014), the view is naturally feel most requested because it is the most stimulated by the environment. The choice of colors and shapes to design a product, the arrangement of a point of sale or the realization of an advertising campaign is a success factor used since a long time.

*«Of all the senses, sight must be the most delightful.» Helen Keller*

It is important to note that 80% of information reach the humans by sight. The visual marketing impacts unconsciously on the client and directly influences his perception and

reactions front of a product or point of sale. Forming part of the daily consumer landscape, a great importance is given to the choice of colors such as: (hue, brightness, saturation) and shapes in the design of a product, the arrangement of a point of sale, internet website... because it is the first thing the customer see. (Morel David, 2014)

*“You never get a second chance to make a good first impression”. Will Rogers*

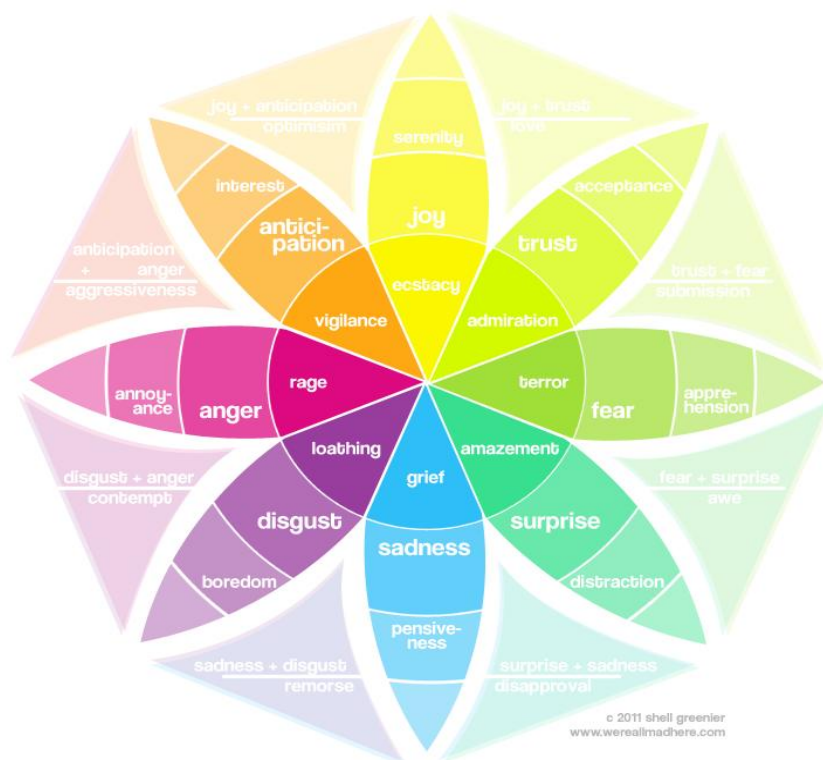
### **-The role of the use of color**

The color should attract the consumer’s attention to the point of sale: this is called the alert function. The attraction function is to empower the point of sale to generate interest for the consumer. The function of welfare helps to create a positive atmosphere in the point of sale.

Function congruence must allow to affirm the position of point of sale. The colors are widely used by marketers because it is a means of communication, they allow the identification and brand differentiation. (Rieunier et al. 2006)

The marketers invests and use scientific researches to create and modify consumers emotions: «Behavioral psychologists have classified emotions in numerous different theories. A large majority of these theories agree that emotions manifest in various intensities and can even combine with others to build new emotional states.» (Shell Greenier, 2011)

### The Robert Plutchik’s emotion wheel:



**Figure 2.:** The emotion wheel (Robert Plutchik, 2011, Schema retrieved from: Shell Greenier, «Optimizing Emotional Engagement In Web Design Through Metrics»)

### **- Gustatory marketing**

The taste is the sensation produced when a liquid or solid in the mouth reacts with receptors buds. Taste determines flavors, sensory impressions food. It is very important for food companies to stimulate the sense of taste because it is possible to make recognize / associate a flavor with a specific brand. The big brands invest a lot to find their specific “taste” in order to be unique and hardly copyable. (Matteo Borraccini, 2013)

### **- Touch marketing**

Regarding to Amy Swansonhe (2011), it is essential to develop the tactile aspect of a product or packaging depending on what the consumer will feel . In effect , the sense of touch , also called “sense proximity” is very important , the majority of consumers of the quality of a product by touching it. Marketers are such that the subject of their product naturally represents the signature of the brand so they are differentiated from the competition ; this requires significant investments in research and development before launching new product.

### **- Auditory marketing**

Regarding to Matteo Borraccini (2013), perhaps the second most used technique by marketers and advertisers is the sense of hearing. The consumer must be able to identify the brand or product through music, a jingle or voice.

Some brands use the same music or the same voice in all their advertisements to be recognized more easily. The influence of music is most effective when it is unconsciously perceived by consumers. Indeed, soft music and encouraged to linger, while a dynamic music makes the most urgent customer; it has been proved by various studies.

### **- Olfactory marketing**

According to Emilie Moronvalle (2013) this factor is very important for some products. This is the case for health and beauty products, but also food. Aside from products, olfactory marketing can also be found in the point of sale through scent diffusers. Every Fast Food brands are using this technique in order where certain odors are released for the customer to stimulate the act of buying and give a better perception of the brand.

Odors awaken emotions and memories and we associate odors to facts, remembers. However, not everyone responds to the same stimuli. Differences exists by gender, age, culture and the internal state of the body. A group of researchers composed of Chakra Chennubhotla, Arvind Ramanathan and Jason Castro wanted to know if it was possible to classify odors and group them by “odor profile”; in order to complete this research, they analyzed a sample of 144 odors. The scientists used a statistical technique called NMF (Non-negative Matrix Factorization). They digitized the data collected and the analysis conducted to classify and group all odors in 10 main /basic categories (George Dvorsky, 2013) :

- Fragrant (e.g. florals and perfumes)
- Fruity (all non-citrus fruits)
- Citrus (e.g. lemon, lime, orange)
- Woody and resinous (e.g. pine or fresh cut grass)
- Chemical (e.g. ammonia, bleach)
- Sweet (e.g. chocolate, vanilla, caramel)
- Minty and peppermint (e.g. eucalyptus and camphor)
- Toasted and nutty (e.g popcorn, peanut butter, almonds)
- Pungent (e.g. blue cheese, cigar smoke)
- Decayed (e.g. rotting meat, sour milk)

(George Dvorsky, 2013)

#### 2.3.4 The olfactory system

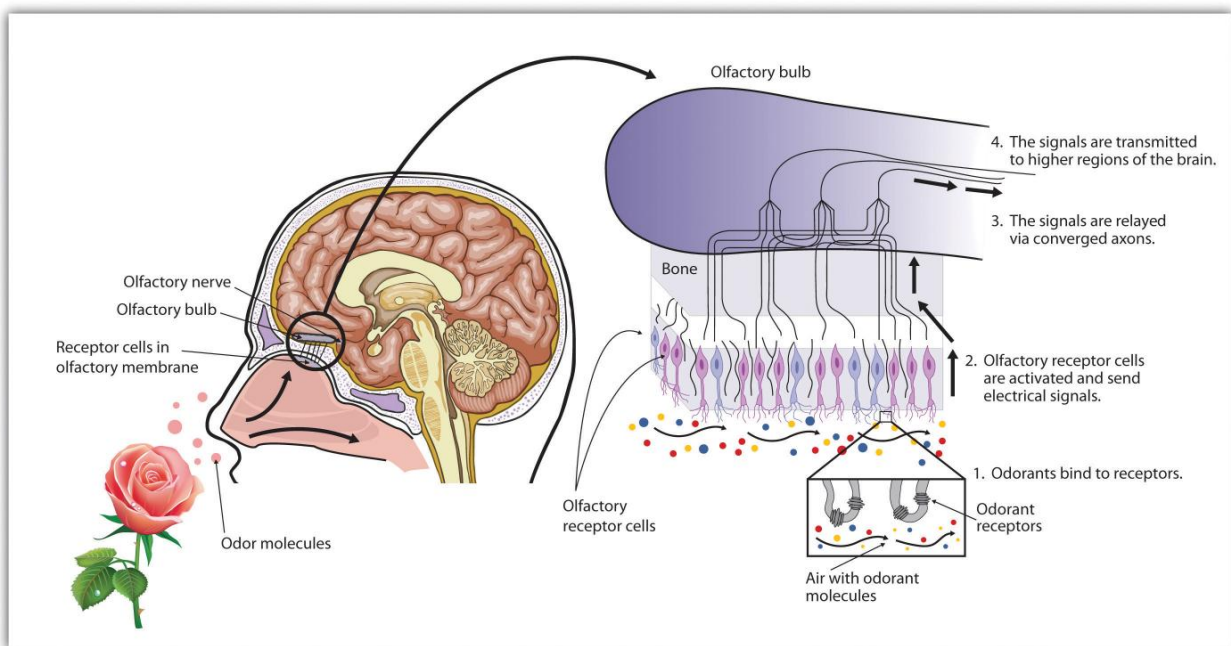
##### **The mechanism of odor perception, from the air to the brain:**

Regarding to Didier Trotier (2011), the olfactory system is represented by several receivers, the aim of each receiver is to detect and signal the presence of a particular molecule. Odor molecules transported in the air passes through the olfactory mucosa and fixed themselves to

the olfactory neurons that are extremely sensitive. Then, the olfactory system will distinguish the odorant molecules through a large number of receptor protein; the identification of the odor will be carried by the differences in the coupling structures of odorant molecules.

The olfactory system is organized specifically to analyze a large amount of information; Indeed, millions of olfactory neurons are connected about a thousand centers “integrators” located in the olfactory bulb of the brain. One olfactory neuron gives a single receptor protein and all neurons which express the same protein leads to the same integrative center of the olfactory bulb. Thus, the smell of an element results from a set of integrators that this element can activate through its different formations of odorant molecules. (Didier Trotier, 2011)

\* Schema of Smell Receptors by Charles Stangor:



**Figure 3.** : Figure of Smell Receptors (Charles Stangor - «Chapter 4: sensing and Perceiving – Smelling»)

«There are more than 1,000 types of odor receptor cells in the olfactory membrane.» Charles Stangor

Human nose can detect 1 trillion odors:

A study was set up to test the limits of smell in humans. Andreas Keller and his team asked to a sample of 26 people to select fragrances that they felt different and / or similar across different tests. The analysis of results of this scientific study allowed to reveal that the human nose can detect at least 1 trillion odors. (Jessica Morrison, 2014)

The nose of an individual is composed of 400 different olfactory receptors; “The relationship between the number of odorants that we can discriminate and the number of receptors that we have is unclear,” (Noam Sobel, a neuroscientist at the Weizmann Institute of Science in Rehovot, Israel.)

According to Donald Wilson (2014), an olfactory researcher at the New York University School of Medicine, the results of this study are “revolutionary” because they will enable researchers to better understand the olfactory system and its neural responses.

Andreas Keller (2014) says: «My hope is that this helps to dispel the myth that humans have a bad sense of smell.»

2.3.5 The Limbic system related to the emotions

Smells (Olfactory system) generate strong emotional reactions and marketers are using them in several manners to reach us. Indeed, Scientific studies have shown that 75 % of our emotions are generated by the smell (Martin Lindstrom, 2005).

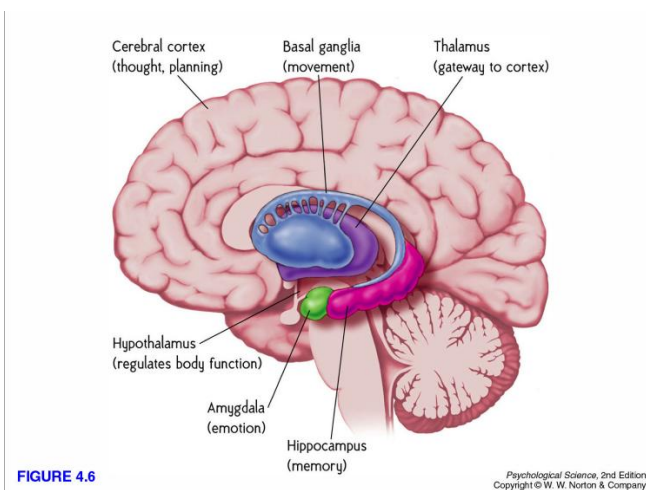
According to P. Cook and Hy Mariampolski,(2009) « Olfactory memory is associated with deep emotional memories because they are all resident in the limbic system and its associated components such as the hippocampus and 19ifferen. These parts of the brain are connected with primal individual emotions such as self protection, maternal love, care of children, sexual desire and satisfaction of hunger. There is little consensus about the precise biochemical process by which these connections occur, and it is clear that olfactory memories may be inaccurate as well as based on context and subsequent experience. Nevertheless, they produce powerful emotional associations.”

### How aromatic molecules influence the emotional center of the brain ?

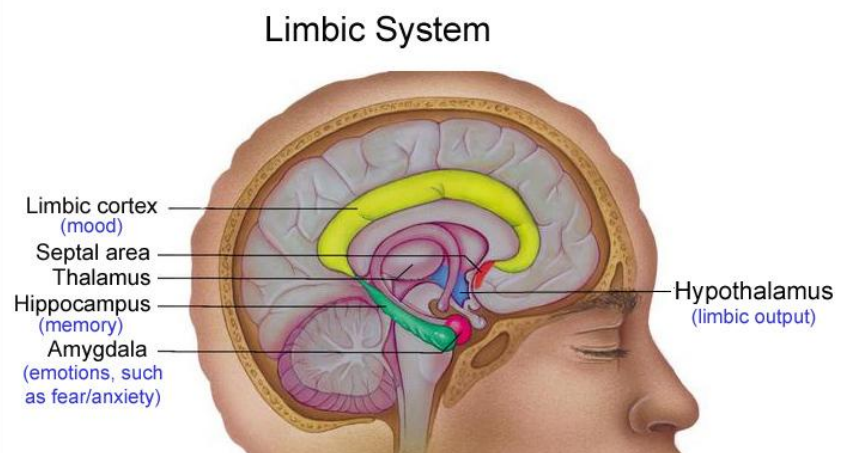
Regarding to the Institute of Neurosciences of Swiss Universities, the limbic system is embedded within the temporal lobe of the brain and can be likened to the emotional brain. The limbic system also has a key role in memory and learning ability.

Emotions are formed in the limbic system; it has multiple mechanisms of action, responsible of euphoriant effects and therefore the effects of addictive drugs such as opiates, but also hormones present in the chocolate or producing in extreme sports.

When we think, perceive, feel, we automatically evaluate an effect, this one can be positive, neutral or negative. This evaluation is very fast (less than 100 milliseconds) and proceed in an unconscious way. Our limbic system reacts instantly to our thoughts and sends the information to the brainstem, causing various reactions in our body. (the Institute of Neurosciences of Swiss Universities).



**Figure 4.** Human brain schema (Allie C,2012. Psychological Science, 2<sup>nd</sup> Edition).



**Figure 5.** Limbic System schema (Dr Rajiv Desai, 2012. Retrieved from [http://drrajivdesaimd.com/?attachment\\_id=21](http://drrajivdesaimd.com/?attachment_id=21)

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**Amygdala:** The amygdala plays an important role in learning, memory and emotion management. The amygdala coordinates the body response to the fear and aggression.

**Hypothalamus:** Represents the major link between the nervous system and the hormonal system.

**Hippocampus:** (Named in reference to the marine animal, because it has the same physical form) The hippocampus is mainly involved in proprioception, the construction of memory and the resurgence of memories. It helps to select information, to store and transmit them to specialized regions in long-term memory. On the other hand it associates emotions at the memory. A lesion of the hippocampus may prevent the formation of new memories even if memories previous the lesion remain intact.

**Limbic Cortex:** Regarding to Pierrick Horde, (2013) the cerebral cortex tissue is also an organ called gray substance, covering both hemispheres to a thickness of a few millimeters. The cerebral cortex is composed of different layers, more or less numerous according to region covered hemisphere. The cerebral cortex is involved in many cognitive functions such as certain senses, language, motor skills and memory.

**Septal area:** The septal area is located in the lower part of the frontal lobe and in the corpus callosum. This is a very active member of the physiology of the limbic system such as (attraction, appetite and satisfaction). Pierrick Horde, 2013.

### 2.3.6 The link between the Taste and the Smell

Regarding to Aubrey Carter, (2014) When we are eating, our taste buds' receptors react to a food's odor and both the taste and smell combined allow us to clearly identify what we are eating. In fact, in our brain, taste and smell are connected to the same neurons. The nose and tongue are linked to give us flavor.

## 2.4 Consumer behavior and purchase decision

### 2.4.1 The concept of consumer behavior

Charles Doyle (2011), defines a consumer as the final user of one good or one product. The way a consumer is acting before to make the purchase decision is called consumer behavior (Rajeev Kumra, 2007). A study of this behavior is really important for the companies in order to make them know the main characteristics of the consumers and so on, create a good customer value (Eades, Kenneth M. Laseter, Timothy M. Skurnik, Ian, 2010). Knowing customers better also improve the benefits, help in the set up of the marketing strategy such as who the company targets for example, permit to have better sales and so on (Rajeev Kumra, 2007).

Gherasim, A., & Gherasim, D. (2013) are exposing in their study that many different model of human behavior are existing, according to psychological and sociological authors. For example, we can talk about the Hobbes model. In this model, the customer is rational and his behavior is predominated by rational reasons, in the interest of the company as well as his own interest. At the contrary, the Maslow model shows up that all the human needs are following a hierarchical pyramidal model. Indeed, when the basis of this pyramid (representing the most basic needs like food, water and health) is achieved, the individual wants absolutely to reach the next step and so on and so forth.

Whatever the model, consumer behavior is influenced by many different factors, explaining why all the consumer are not acting in the same way (Veblen model, quoted in Gherasim, A., & Gherasim, D. 2013 ; Rajeev Kumra, 2007 ; Eades & Al 2010). Eades & Al (2010) highlight the following points as factors influencing the customer behavior:

*.Cultural and subcultural factors.* The main term of culture is difficult to define. In fact, culture embraces many points such as beliefs, knowledge, values, traditions and others, which are settled down in customers' mind unconsciously (Rajeev Kumra, 2007). In the Veblen model (quoted in Gherasim, A., & Gherasim, D, 2013), the culture is described as a "*long-lasting influences on the customer behavior*". Eades & Al (2010) also argue that two culture point of view exist and impact the customer differently. On the one hand, the individual-based culture like the American one or the European one, is focused on the self-interest and on the individual needs; on the other hand, the collectivists-based culture like the one found in mostly Asian countries, is focused on the people and the group harmony and needs. Last but

not the least, the subculture is also impacting on customers' behavior. The subculture define a small group of people sharing the same thoughts and who feel apart from their original culture (Ian Buchanan, 2014).

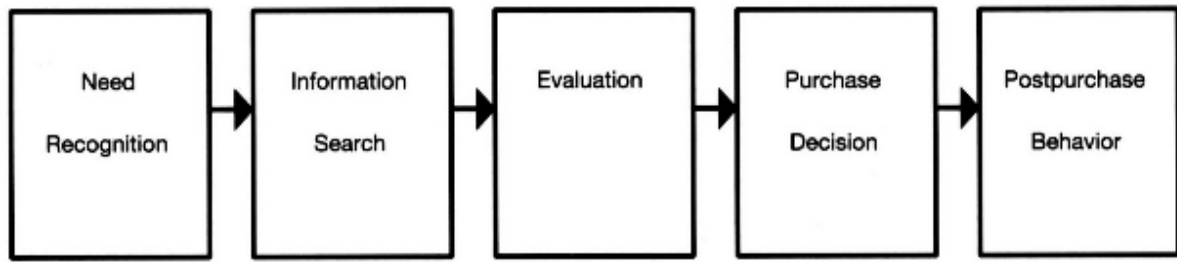
*.Social and interpersonal factors.* The social group is the group a consumer belongs to, also called membership group (Eades & Al, 2010). The group having the biggest impact on customers' minds and behavior is the family. Eades & Al (2010) are even talking about a decision-making unit, where every member of the family have a different role in the buying process. The membership group can also be the friends, the neighbors, etc (Rajeev Kumra, 2007). In the Veblen model (quoted in Gherasim, A., & Gherasim, D, 2013), the reference group remain one the most influential social factor. Consumers are indentifying themselves in the reference group for many reasons such as they share the same aspirations, but do not belong to this group (Veblen model quoted in Gherasim, A., & Gherasim, D, 2013).

*.Internal and psychological factors.* Those factors are personal to each person. The internal or intrinsic factors, as J. Jacoby, G. V. Johar and M. Morrin (1998) are calling them, are the age, the gender, the ethnic group, the personality and the perception of price and risks.

Finally, the customer behavior has a direct impact on the purchase decision process.

#### 2.4.2 The Purchase decision process

The decision-making process is a way of taking a decision concerning the act of buying one good or service (Rajeev Kumra, 2007). According to Dr. M. Sakthivel Murugan and R.M.Shanthi (2012), a consumer is facing two types of purchase. The *trial purchase* is a first buying act, which can be accompanied by some hesitation. On the contrary, when the consumer is buying the same product, is loyal to a brand or have a commitment towards the company, we talk about a *repeat purchase*. Whatever the type of purchase, we can analyze five step in the buying decision process (Figure 6.).



**Figure 6.** The Five steps in the buying decision process  
(Comegys, C., Hannula, M., & Jaani Väisänen, 2006)

*Need Recognition.* The first step of the buying decision process is starting with a problem or need recognition (Comegys, C., Hannula, M., & Jaani Väisänen, 2006). A need is what a Human requires to live such as food and water (physiological needs), safety and health needs, compassion needs, the entertainment needs, and others (Kumra, 2007). Kumra (2007) adds that a need recognition may appear because of many factors: to walk in front of a restaurant is making a customer hungry, the discussion with a friend concerning his new jacket will develop a need in customer's mind, etc. Then, the main goal of a customer will to fulfill this need to create a state of satisfaction (Comegys, C. & Al, 2006). From a company point of view, this first step represents the good moment to offer a solution to their problem (Eades & Al, 2010) .

*Information Search.* When the customer has a need recognition, he will focus on this need and search for information about how to satisfy his need. To make it easier, the consumer is using different channels of communication as well as his belonging group in order to find the information needed (Comegys, C. & Al, 2006). His research may be made according to the brand, the attributes of the products, the past experience the consumers have had with this product or an evaluation of what he likes/dislikes (Kumra, 2007). In this second step, a company has to increase its visibility to catch customer attention (Eades & Al, 2010).

*Evaluation.* This step is the one where the customer is choosing between different products able to satisfy him. Eades & Al (2010) are defining two main criteria pushing the consumer to choose the final product: the brand, and the attributes.

*Purchase Decision.* This fourth step is coming just after the consumer has made his choice and is open to purchase his final choice (Comegys, C. & Al, 2006). According to Dr. M. Sakthivel Murugan and R.M.Shanthi (2012), this step is influenced by many different factors, which can also change the final choice: the mood, the shopping area, the temporal factor, etc.

*Post purchase Behavior.* After the purchase is made, the consumer may develop feelings or reactions like satisfaction or dissatisfaction, depending on how the product answers to his problem (Dr. M. Sakthivel Murugan and R.M.Shanthi, 2012). This final step is important for the companies. Indeed, knowing consumers' reaction allows companies to know them better and make them come back purchasing their products and/or services (Comegys, C. & Al, 2006).

## 2.5 Focus on our target : the generation Y

### 2.5.1 The concept of generation

Feng (2011) defines a generation as a group of population having approximately the same age and sharing the same characteristics. He adds that whatever the generation, it is composed by two attributes: the *natural* attributes or in other words, the age, and the *social* attributes, representing the environment, the psychological aspects, etc.

### 2.5.2. From the Baby Boom to the Generation Y

After the Second World War, four generations succeeded one after one. The first generation, called the "Baby Boom" is the one which merely appeared after the war, in 1945 and this until the 1960's (Charles Doyle, 2013). The Baby Boomers were directly born after the war and so on, knew an economic and social different circumstances compared to the former generations (Stephen Crystal, updated by Richard Schulz, 2006). As this generation grew up after the war, it knew one of the most sustained economy and lived in a prosperous world (Owram, 1997). Owram (1997) argues that this generation is one of the most influent and was an idealistic and confident generation, going through many society evolution such as the "flower power" and the woman's liberation.

The Baby Boom generation ended in the middle of the 1960's, when the birth control pill appeared massively in the market: the Generation X takes place (Daniel Chandler and Rod Munday, 2012). According to Charles Doyle (2013), this generation is characterized by how Gen-X people are disinterested in the politic and how they became more materialistic compared to the last generation. Finally, this generation enjoys the good quality and is always

looking for a good value for money (Jennings, 2012). The generation X ended in the 1980's and the generation Y took place instead.

### 2.5.3. The characteristics of the Generation Y

The generation Y is the one following the generation X. Most of the people from the generation Y are the children of the Baby boomers and are in general born between the 1980's and the middle of the 1990's, depending on the authors (Daniel Chandler and Rod Munday 2011). The principal key characteristic of this generation is that they are all born in a media-centre area, living between the new technologies, internet, innovations and so on (Dawn B. Valentine, Thomas L. Powers, 2007). Contrary to their parents, the population of the generation Y are less utopist and less idealistic and this because of the environment they are evolving in (McCrindle, 2003). Customs have changed through the time and generation Y became more tolerant, trustful, and in comparison with the X-ers, the Y-ers are less materialistic (Dawn B. Valentine, Thomas L. Powers, 2007). Indeed, what those people prefer is to have a profitable life and have good relationship with their friends and their families (Mason, Michael Christopher, Andrew Tintin Singleton, and Ruth Webber, 2007). Concerning the relationship with the outsider, McCrindle (2003) adds that the generation Y refers to their peers to make any kind of decision. He also describes the generation Y's values which are the relational connection, the bigger meaning and the trusted guidance. Generation Y is a complex kind of population because of their different values and the fact that they do not need the same traditional marketing (Dawn B. Valentine, Thomas L. Powers, 2007). Actually, the Y-ers need experience, understanding, interest and openness, to understand their needs better (McCrindle, 2003).

### 2.6 The olfactive experiential marketing online

Regarding to Stephane Degor (2012), in marketing, the more senses are stimulated, the more the consumer buys, spend time in the store and increases its satisfaction with the brand. It is therefore logical to adapt experiential strategies on Internet. The view was the first sense available on the internet with the colors, design and ergonomics; then it was hearing, with the arrival of broadband, with music and sound effects associated with advertisings.

Smell is the last sense missing on internet as well as the taste. The first French company olfactory multimedia, Exhalia (related to France Telecom R & D), has made its appearance and offers to connect to a computer odor diffuser, consisting of 12 cartridges, which reproduces by combining scents appropriate odors. However, the process is not new. Indeed, at the end of 2000, OlfaCom already proposed a similar system. (Stephane Degor, 2012)

### A new technology that is currently very expensive (cf. annexes 1)

Yvan Régeard, the founder Exhalia says that the cost of the gadget is now 400 € each, but could drop to 150 € the unit in 2 years. Even at these prices, it is relatively expensive compared to the sensations produced. One can imagine several scenarios for the payment of this device. First, the equipment is paid by the user, this seems implausible, Second scenario, the equipment is paid by the advertiser itself, but it will be a heavy investment for a very marginal audience. The third solution is that hardware manufacturers and publishers operating system directly integrated diffuser in the PC. This would certainly be the most logical solution for rapid diffusion. It will be necessary to standardize the device at an international level. (Stephane Degor, 2012)

This technology represents a major potential market, in fact, it will inevitably be necessary for perfumers, florists, travel agencies and for many other sectors such as video games, in order to make them more real. The nutritionists have proven the impact of odors on the feeding behavior of individuals, and it is now possible to follow a diet of vegetables while breathing the smell of grilled meat. (Stephane Degor, 2012)

### 2.7 Hypothesis

Before to answer to our research question, we can make some suppositions and hypothesis concerning how the consumers could approach the marketing experiential online.

**Hypothesis 1.** *The consumer perceives olfactory experiential marketing online as having a strong impact on people's minds.*

**Hypothesis 2.** *The consumer is not sure about the fact that the experiential marketing online is having an impact on people's minds.*

**Hypothesis 3.** *The olfactory experiential marketing online will be totally rejected by the consumer and so on will have no impacts on his mind.*

### **3. Methodology**

The aim of this third part is to describe the research design and so on, the method we used to collect our data. After we have explained the theoretical part of the different way of carrying data, we will choose a method to answer to our question and then, explain why we made this choice

#### **3.1 Quantitative and qualitative research**

Before starting our research, we have to know if we have to follow a quantitative or a qualitative research and why. Both researches have their own advantages and disadvantages and this is what we try to show up with different theories in this part.

Jha (2008, p.45) describes the **qualitative research** as a “*multimethod in focus, involving an interpreting, neutralistic approach to his subject matter*” Actually, that kind of research is defined by the fact it is based on the visual and the verbal to find out the data needed (Russel W. Belk, 2013). The qualitative research is often done in a natural environment and describes normal facts of the consumers' lives (Belk, 2013). Many empirical methods are used for that kind of research (Bryman and Bell, 2011). The *Ethnographic observation* is used to have an overview of one particular group of people, a culture, an ethnic, etc.; the *Qualitative interviewing* is useful to have directly the answer needed; the *Focus Group* is a method where few groups are studied and where they are talking about a topic (Doyle, 2013); the *Language-based approaches to the collection of qualitative data* is a method focusing on the oral conversation such as the discourses; the *Collection and*

*qualitative analyze of texts and documents* is a method where the documents and books are used to answer to the research (Bryman and Bell, 2011).

On the other hand, Jia (2008, p.47) says that the **quantitative research** is an “*hypothesis-testing research*” Contrary to the qualitative research, the quantitative one is based on a numeral research and is giving more precise data instead of characteristics data (Saunders, M., Lewis, P., Thornhill, A., 2009). The quantitative research’s best tool is the questionnaire or survey.

For this case, our research is a quantitative one. Indeed, we want to have numbers to answer to test our hypothesis in order to answer our research question.

### 3.2 Research design

In marketing, different types of researches exist: the exploratory, the descriptive and the explanatory research (Holbert, Speece, 1993). One of those researches have to be settled before to start, in order to have the objectives of this research and to catch the information in a good way (Kotler and Armstrong, 2008). The Exploratory research is helpful to have some preliminary information about a topic in order to make after some hypothesis. Hence, the marketers know more about the problem, the respondents, etc and so on, will be more able to answer the question (Holbert, Speece, 1993). Then, the descriptive research is more helpful to describe different marketing problems, already existing. In this kind of research, the problem is already known and understood, the aim being only to describe the facts and the matters but also to make some predictions (Holbert, Speece, 1993). Finally, or the last type of research, the explanatory one, Holbert and Speece (1993) say that it is a research where the marketer cannot prove anything but demonstrate things in order to find an explanation for the research question. More, an hypothesis is already existing and the goal of the research is to find the explication for why there is this hypothesis. (Kotler and Armstrong, 2008)

The research we selected is an exploratory one. In fact, the experiential marketing olfactive online is a concept pretty new and not officially launched yet. That is why we want to know if the olfactive sense online can affect the customers’ feelings.

The aim with this research will be to explore what is the impact of that kind of marketing on customers’ mind and so on, how the companies can use it.

### 3.3 Population and Sample

First of all, we have to focus on a particular population in order to complete our research. This population has to be defined before all the research. All the members of one population have the same characteristics (Jobber, 2001). To remain closer from our subject, we will focus on the generation Y. Indeed, as developed in the frame of references, the generation Y is the population the most connected via the technology and the internet, and the population following the evolution and the innovations. More, regarding to Julien Pouget, (2009) the generation Y is a very attractive target for marketers for several reasons:

- **Its size is massive** with about 13 million people in France, 70 in the United States and 200 in China Conversely, the Baby Boomers coming soon at the age of retirement.

- **This is a promising target.** The generation Y is just beginning to work but their purchasing power will increase over the next decades. In the United States, for example, Generation Y will represent in 2014 nearly half of the workforce.

« We all know that Generation Y uses technology to connect with the world around them in more diverse ways and in greater numbers than any other age group. » (Ekaterina Walter, 2012)

After the population is determined, we have to focus on sample. Saunders, Lewis & Thornhill (2009) argue that a sample is a useful tool to generalize the data to a whole population. Kotler and Armstrong (2008) add that “*a segment of the population selected for marketing research to represent the population as a whole*”. Saunders, Lewis & Thornhill (2009) describe two samplings methods, as following.

*The probability sampling.* In the probability sampling, the population is not divided in groups and is all equal for the marketer. This sample would represent all the population as a whole, each person in the sample has the same chance to be selected (Kotler and Armstrong, 2008). Having a good sample means that the sampling frame and the sampling size have been chosen but also a kind of probability sample (Saunders, Lewis & Thornhill, 2009). Indeed, many kind of probability sample exist:

<b>The simple random</b>	Random sample from the sampling frame
<b>The systematic</b>	Sample is selected at regular intervals from the sampling frame
<b>The stratified-random</b>	Population divided in small sampling group
<b>The cluster</b>	Population divided and grouped according to different criteria (age, geographical area, gender,...)
<b>The multi-stage</b>	Evolution of the cluster, to be more precise

*The non-probability sampling.* The non-probability sample is based on the marketer's subjectivity. As well as the probability sample, the non-probability sample needs his size to be defined. Then, a non-probability sampling method as to be chosen, between all the following ones:

<b>The Quotas</b>	Non-random and stratified sample. Used for interviews
<b>The purposive</b>	Use your own judgment to choose the case to answer the problem
<b>The snowball</b>	Used when difficult to reach the population studied
<b>The self-selection</b>	The person of the population choose to take part of the research
<b>The convenience</b>	Choose in a haphazardly way the easiest sample to reach

The sample we have chosen to focus on is the active generation Y, meaning the students of Halmstad University in the first position, as well as the other students like for example, the students from our university back home and the workers. Indeed, this sample has a lot of characteristics which matches well with the pattern of our research question. First of all, all the students belong to the generation Y, which is the population we have chosen to study. More, one of the common point of the population of the generation Y is that they all use the new technologies such as Internet, Smartphone, etc. and so, they are more than concerned with our problematic. Then, in Halmstad, most of the students are from different countries, and so, have a different culture with different way of thinking, which can give us more information very useful. Finally, there are five different departments in this university with

different specialties, which can give us different vision for our subject. As a limitation, it was not possible to reach all the worldwide generation Y. For this reason, we have interviewed the generation Y from our university in Sweden and we also spread the questionnaire to our friends back home from our university or not, in the South of France.

In order to complete our survey, and to be tuned with the quantitative method, our sample will be a random one. This way, we will have a more objective result and a general notice about the experiential marketing olfactive online. Also, since we don't want to focus on only one culture or country or age, a random sample is more adapted to this survey.

### *3.4 Instrument to collect the data*

To carry out any research, different tools can be used. One of the most used tool is the questionnaire, which can be administrated with different way, such as directly or by phone, by email, etc. Those one are composed on more or less questions and remain very flexible. Indeed, there are a lot of ways to ask the questions, which give more choice to the researcher, depending on what he is looking for (Kotler and Armstrong, 2008). Finally, concerning the questions, the researcher has to choose what kind of question he wants to asks: open or closed questions. Those questions can be dichotomous, meaning that are just two answer choice; multiple choice, meaning that there are more than two possibilities of answers; or also the open-ended questions which will also the interviewed to be free with its answer. (Jobber, 2001)

A questionnaire will be the instrument of our survey in order to collect the data. This questionnaire will be composed about ten questions, such as open and also closed questions. To reach our sample better, this questionnaire will be send on the different groups Facebook which have been created to regroup all the international Halmstad University's students as well as the group from our university, and also in other students groups. As our questionnaire is sent on a social network, we aim to have a snowball effect, meaning that we first send it and then people are spreading it over Facebook. This way, we will be able to reach the most people, our aim being to reach around 100 people.

### *3.5 Collection of empirical data*

The survey is usually in the form of a questionnaire and that one is done through a questionnaire represented by a list of quantitative and/or qualitative questions methodically ordered; to have a good quality and reliable questionnaire, **we must respect three aspects:**

- The background: What is the purpose of the investigation? (What information to understand?)
- The form: Raising interest. (Formulate simple questions)
- The presentation: this one should emphasize the objectives of the survey in an introductory sentence and the different themes in visually delimited areas. (Anuška Ferligoj and Andrej Mrvar, 2003)

**Some rules are required to create a questionnaire.** First, it is essential to set the purpose of the present investigation as well as his identity; then, we have to define clear, short and precise questions from the most general one to the most precise and personal. To conclude, it is normal to thank the person who gave us time at the end of the questionnaire.

**There is four main types of questions which govern the majority of questionnaires such as:**

- Open Question: Allows the individual to express his opinion, freedom of response is complete. The counting (analysis) of the results is difficult.
- Closed multiple choice question: Several answers are proposed, it is allowed to tick more than one; processing the results is quite easy.
- Closed single response question: A minimum of two responses are proposed and only one answer is possible. This type of question fast and precise. The use of the results is therefore quick and easy.
- Closed ranking question: Must classify the proposed answers (be careful not to offer too many questions) in a preferred order. The question must be clear and well presented. It is easy to strip results, but their interpretation is often binding. (Anuška Ferligoj and Andrej Mrvar, 2003)

Inserting too many open questions give us a result not precise enough and too many closed questions would not be objective enough about the real opinions of individuals. That is why it is essential to find a balance between open and closed questions regarding the reliability of the analysis that follows the questionnaire.

### **The different ways of collecting data:**

This step consists to interpret the investigation by transforming the data into results. First, we proceed with the preparation of the skinning; secondly, we begin by collecting information and then, we check the seriousness and consistency of each response of each completed questionnaire. When we are sure about the reliability of our data, we proceed with counting and sorting the questionnaires via two main methods:

- Sorting flat: Which consist in calculating percentages (frequencies) from the results of a single question. We can present these results as pie chart “Camembert”.
- The cross-tabulation: This method consists to meet the result of the answer of two questions by counting for each answer of a question, the answer to another question. These questions are combined in a logical manner; for example, the age individuals is correlated with their level of savings. (Pierre-André Chardon, 1981)

### **How do we collect the data:**

We used the Sorting flat method to sorting the answers.

## *3.6 The data source*

### *3.6.1 The online survey method*

In order to give an answer to our research question, we have chosen to follow the online survey method. According to Charles Doyle (2011), “a questionnaire is used to gather information on attitudes or behaviours”. It is an easy way to collect the information needed, without any cost and which give a pretty useful results which can answer to our subject. Using

that kind of method permits a lot of advantages such as the access to the people in an easy way, whatever the distance and also the automated generated results which allows the marketer to gain time on his research (Kevin B. Wright, 2006). Then, as the use of Internet is increasing in more and more areas, the online survey method will help to reach more people than in the street, for example (Fox et al. 2001; Nie et al., 2002 quoted in Kevin B. Wright, 2006).

Our online survey's objectives are as follow:

- First, to know how the target is using the technological tools in order to have a global vision of their habits
- Secondly, to know if they have already been in contact with the olfactory marketing and so on, how did they feel about this experience
- Finally, to check if they know the experiential marketing online and their feelings about that.

The questionnaire is composed of 17 questions and is on a questionnaire funnel way. A funnel questionnaire means that the questions are from the general to the particular (DH Stone, 1993). In order to be more efficient, we have chosen to ask many different kind of questions. Indeed, our survey online is composed by closed questions, scale questions, multiple choice questions, Likert scale question and finally text questions.

As we have explained in the 3.Methodology, the questionnaire has been administrated via the social network Facebook. Indeed, this social network groups a majority of people from the generation Y: 89% of these generation was using the social network in 2010 (Statista.com). This way of administration will help us to spread our survey easily and to reach a lot of generation Y people via the university's Facebook group for example and some other groups.

### 3.6.2 The use of the data

After administering the questionnaire, the data collected will be used to answer to our research question and to end up in with a conclusion. All the data will be summarized, then described and to finish they will be analyzed to find a conclusion to our problem and find news theories. Thanks to our questionnaire, we will have quantitative answers which will give us an overview of the general thoughts concerning our subject. Then, thanks to the opened questions, the data collected will be the individual point of view of all the interviewees, and

so on, will give us important and more detailed answers. The table under explains what kind of information we have thanks to the questions of our survey:

Questions	Type of data
<p><b>The Technology</b></p> <ul style="list-style-type: none"> <li>- Technological tool the more used</li> <li>- Time spent on the internet</li> <li>- The advertising online</li> <li>- Impact on the advertising online on the customers</li> </ul>	<p>This part of the questionnaires gives data concerning the respondents' habits concerning the technology. We can make a relation with the theory talking about the use of the technology in the generation Y. Also, this part is giving information about the advertising online (and so, the marketing online) like how it impacts on their minds.</p>
<p><b>The olfactory marketing</b></p> <ul style="list-style-type: none"> <li>- The feeling in a shop with a smell</li> <li>- The impact on the purchase behavior</li> </ul>	<p>On this part, we focus on the olfactory marketing to have more detailed concerning the impact on the smell on the consumers' buying behavior, meaning that it will help us to know if it is useful or, in the contrary, useless.</p>
<p><b>The olfactory experiential marketing online</b></p> <ul style="list-style-type: none"> <li>- Awareness of the concept</li> <li>- Willingness to try the experience</li> <li>- The impact on the customers' buying behavior</li> <li>- The used of this new technology</li> </ul>	<p>This part focuses directly on our main topic. Through those questions, we are able to know the impact on the consumers' buying behavior, if the process would work, how the consumers would prefer to use this concept.</p>
<p><b>Psychological data</b></p> <ul style="list-style-type: none"> <li>- Gender</li> <li>- Year of birth</li> <li>- Activity</li> <li>- Belonging to Halmstad University</li> </ul>	<p>Finally, this last part gives data concerning our respondents, and also, by their year of birth, we are able to know if they are from the generation Y or not.</p>

### 3.6.3 [The relation with our theory](#)

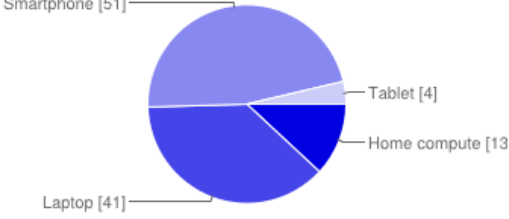
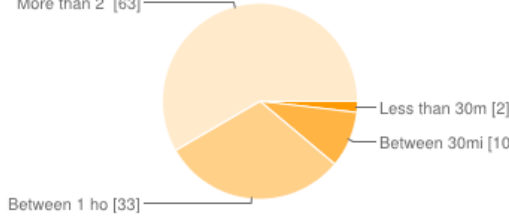
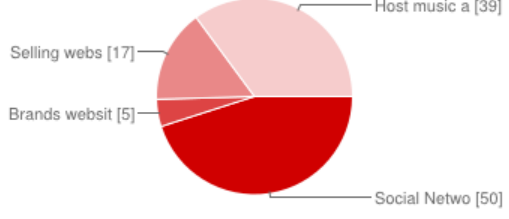
The objectives of our questionnaires as well as the questions are correlated with all the points we want to focus on throughout this study: the customers habits concerning technology, the smell online and finally the olfactory experiential marketing online.

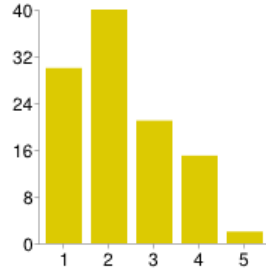
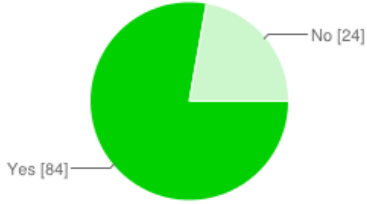
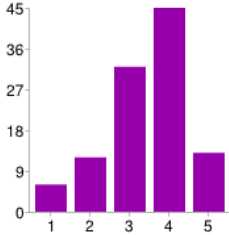
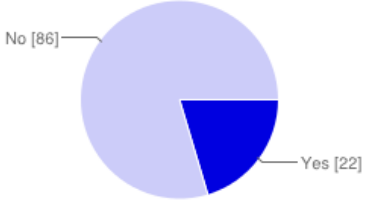
Indeed, in the problem we have found that the experiential marketing has been expanded to the virtual world (Liu, C, Ching, R K., Chen, J, Luo, M M, 2010). For this reason, some

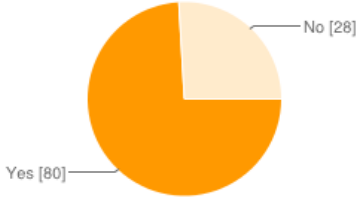
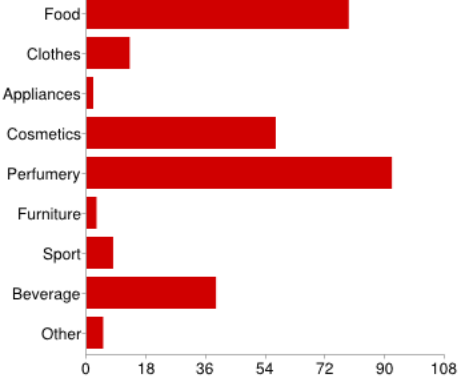
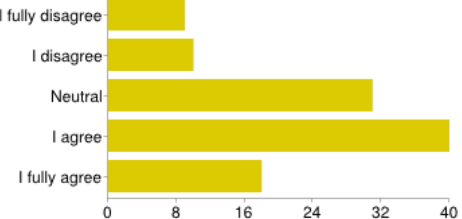
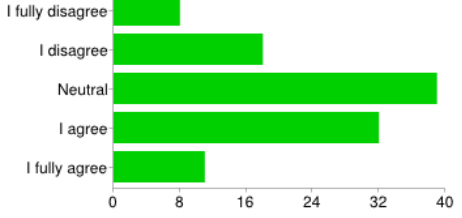
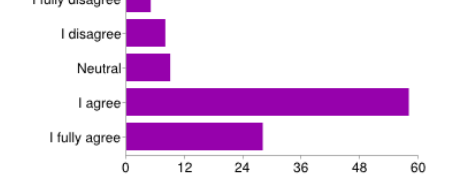
questions concern the way our target use the technology and so on, we will be able to say if the olfactive experiential marketing online would be useful to create new experiences via the smell sense or not. Then, we have found that the smell is one the sense which is not used with this experiential marketing online. Following this idea, the questions concerning the smell will give us crucial information about the impact of the smell on the customer. Finally the questions concerning the olfactive experiential marketing online will provide us the main information to answer to our problem, which is the fact that the companies cannot differentiate themselves anymore through the experiential marketing online and so on, answer to our research question which is how the consumer perceive the olfactory marketing online.

#### 4. Empirical Study

We have received 108 responses. All the responders are belonging to the generation Y, which is, to remember, the population born between 1980 and the early 2000's. They are all student or workers. Following, a table which summarize all the results we have collected.

Question	Results	Graphic representation										
Which technological tool do you use the most ?	The smartphone is the is the tool most widely used with 47% of the population; 38% declare using their laptop; 12% their home computer and only 4% the tablet.	 <p>A pie chart illustrating the most used technological tools. The largest slice is Smartphone at 51%, followed by Laptop at 41%, Home compute at 13%, and Tablet at 4%.</p> <table border="1"> <thead> <tr> <th>Tool</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Smartphone</td> <td>51</td> </tr> <tr> <td>Laptop</td> <td>41</td> </tr> <tr> <td>Home compute</td> <td>13</td> </tr> <tr> <td>Tablet</td> <td>4</td> </tr> </tbody> </table>	Tool	Count	Smartphone	51	Laptop	41	Home compute	13	Tablet	4
Tool	Count											
Smartphone	51											
Laptop	41											
Home compute	13											
Tablet	4											
How long time a day do you spend on internet ?	We can note that 58% of the population spend more than 2 hours on internet; 31% between 1h00 and 2h00 and only 9% between 30min and 1h00.	 <p>A pie chart showing the duration of internet usage. The largest slice is 'More than 2' hours at 63%, followed by 'Between 1 ho' at 33%, 'Between 30mi' at 10%, and 'Less than 30m' at 2%.</p> <table border="1"> <thead> <tr> <th>Duration</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>More than 2</td> <td>63</td> </tr> <tr> <td>Between 1 ho</td> <td>33</td> </tr> <tr> <td>Between 30mi</td> <td>10</td> </tr> <tr> <td>Less than 30m</td> <td>2</td> </tr> </tbody> </table>	Duration	Count	More than 2	63	Between 1 ho	33	Between 30mi	10	Less than 30m	2
Duration	Count											
More than 2	63											
Between 1 ho	33											
Between 30mi	10											
Less than 30m	2											
On which website do you encounter the most advertisings ?	45% of the population state encounter the most advertisings on the social network; 35% on music hosting websites; 15% on selling websites and only 5% on brands websites.	 <p>A pie chart showing the types of websites where advertisements are most encountered. The largest slice is 'Social Netwo' at 50%, followed by 'Host music a' at 39%, 'Selling webs' at 17%, and 'Brands websit' at 5%.</p> <table border="1"> <thead> <tr> <th>Website Type</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Social Netwo</td> <td>50</td> </tr> <tr> <td>Host music a</td> <td>39</td> </tr> <tr> <td>Selling webs</td> <td>17</td> </tr> <tr> <td>Brands websit</td> <td>5</td> </tr> </tbody> </table>	Website Type	Count	Social Netwo	50	Host music a	39	Selling webs	17	Brands websit	5
Website Type	Count											
Social Netwo	50											
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<p>On a scale from 1 (low) to 5 (high), which impact do the web advertisings have on you ?</p>	<p>The majority of the interviewees say that the advertising has a very low or low impact on them with respectively 37% and 28% of the population.</p>	 <table border="1"> <caption>Impact of web advertising</caption> <thead> <tr> <th>Rating</th> <th>Number of Respondents</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>37</td> </tr> <tr> <td>2</td> <td>40</td> </tr> <tr> <td>3</td> <td>28</td> </tr> <tr> <td>4</td> <td>16</td> </tr> <tr> <td>5</td> <td>2</td> </tr> </tbody> </table>	Rating	Number of Respondents	1	37	2	40	3	28	4	16	5	2
Rating	Number of Respondents													
1	37													
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5	2													
<p>Did you already feel comfortable in shops thanks to the smell in it ?</p>	<p>78% of the population have answered yes to this question <b>against 22% who said no.</b></p>	 <table border="1"> <caption>Comfort in shops due to smell</caption> <thead> <tr> <th>Response</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>84</td> </tr> <tr> <td>No</td> <td>24</td> </tr> </tbody> </table>	Response	Count	Yes	84	No	24						
Response	Count													
Yes	84													
No	24													
<p>Why ?</p>	<p><b>Yes:</b> The majority of the population feel comfortable because it is nice, make them feel good, lounge, make an attraction, make them remember former products and associate the smell with the brand identity.</p> <p><b>No:</b> The minority of the population don't agree because it's often unpleasant, overwhelming, some odors smell really bad and the smell is too strong (headache).</p>													
<p>On a scale from 1 (low) to 5 (high), does smelling a product will have an impact on your buying behavior ?</p>	<p>42% of the population say that the smell has pretty high impact on their buying behavior.</p>	 <table border="1"> <caption>Impact of smelling a product on buying behavior</caption> <thead> <tr> <th>Rating</th> <th>Number of Respondents</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>6</td> </tr> <tr> <td>2</td> <td>12</td> </tr> <tr> <td>3</td> <td>30</td> </tr> <tr> <td>4</td> <td>45</td> </tr> <tr> <td>5</td> <td>12</td> </tr> </tbody> </table>	Rating	Number of Respondents	1	6	2	12	3	30	4	45	5	12
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<p>Did you hear about that new technology which allow people to smell through their laptop/smartphone/tablet ?</p>	<p>Only 20% of the population heard about this new technology; 80% of the responders do not know this technology.</p>	 <table border="1"> <caption>Awareness of new olfactory technology</caption> <thead> <tr> <th>Response</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>No</td> <td>86</td> </tr> <tr> <td>Yes</td> <td>22</td> </tr> </tbody> </table>	Response	Count	No	86	Yes	22						
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Yes	22													
<p>If yes, where ?</p>	<p>This minority of the population declare heard about the olfactory marketing online through Internet, specialized magazines, TV, and by other people via word of mounh recommend.</p>													

<p>If you had the possibility to smell online via your smartphone/laptop/tablet, would you like it ?</p>	<p>74 % would like to try to smell online against 26% who would not get this possibility.</p>	 <p>A pie chart showing the distribution of responses to the question 'If you had the possibility to smell online via your smartphone/laptop/tablet, would you like it?'. The chart is divided into two segments: a large orange segment representing 'Yes' with 80 responses, and a smaller light orange segment representing 'No' with 28 responses.</p>																				
<p>Why?</p>	<p><b>Yes:</b> In general, the majority of the population thinks it is innovative, fun, help you choosing your product, make you closer with the brand, revolution, don't waste your time, good experience.  <b>No:</b> For the people who would not like to try it, the major reasons are because there is no interest, could disturb people around, don't want any odors, not useful for everything, not the real smell.</p>																					
<p>On which sector would you have an interest to smell online ? (3 choices)</p>	<p>The three sectors which have been chosen are the food with (27%), the perfumery (31%) and the cosmetics (19%).</p>	 <p>A horizontal bar chart showing the interest in smelling online across various sectors. The x-axis represents the number of responses, ranging from 0 to 108 in increments of 18. The y-axis lists the sectors. The bars are red.</p> <table border="1"> <thead> <tr> <th>Sector</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Food</td> <td>72</td> </tr> <tr> <td>Clothes</td> <td>18</td> </tr> <tr> <td>Appliances</td> <td>0</td> </tr> <tr> <td>Cosmetics</td> <td>54</td> </tr> <tr> <td>Perfumery</td> <td>90</td> </tr> <tr> <td>Furniture</td> <td>0</td> </tr> <tr> <td>Sport</td> <td>18</td> </tr> <tr> <td>Beverage</td> <td>36</td> </tr> <tr> <td>Other</td> <td>0</td> </tr> </tbody> </table>	Sector	Count	Food	72	Clothes	18	Appliances	0	Cosmetics	54	Perfumery	90	Furniture	0	Sport	18	Beverage	36	Other	0
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Beverage	36																					
Other	0																					
<p>The intention to buy the product [Smell online would give you:]</p>	<p>37% of the people agree with this quote and 29% are neutral.</p>	 <p>A horizontal bar chart showing the level of agreement with the statement 'The intention to buy the product [Smell online would give you:]'. The x-axis represents the number of responses, ranging from 0 to 40 in increments of 8. The y-axis lists the agreement levels. The bars are yellow.</p> <table border="1"> <thead> <tr> <th>Agreement Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>I fully disagree</td> <td>8</td> </tr> <tr> <td>I disagree</td> <td>8</td> </tr> <tr> <td>Neutral</td> <td>32</td> </tr> <tr> <td>I agree</td> <td>40</td> </tr> <tr> <td>I fully agree</td> <td>16</td> </tr> </tbody> </table>	Agreement Level	Count	I fully disagree	8	I disagree	8	Neutral	32	I agree	40	I fully agree	16								
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<p>The intention to go directly to the shop [Smell online would give you:]</p>	<p>In the generation Y, 36% are neutral concerning this question and 30% agree.</p>	 <p>A horizontal bar chart showing the level of agreement with the statement 'The intention to go directly to the shop [Smell online would give you:]'. The x-axis represents the number of responses, ranging from 0 to 40 in increments of 8. The y-axis lists the agreement levels. The bars are green.</p> <table border="1"> <thead> <tr> <th>Agreement Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>I fully disagree</td> <td>8</td> </tr> <tr> <td>I disagree</td> <td>16</td> </tr> <tr> <td>Neutral</td> <td>36</td> </tr> <tr> <td>I agree</td> <td>30</td> </tr> <tr> <td>I fully agree</td> <td>10</td> </tr> </tbody> </table>	Agreement Level	Count	I fully disagree	8	I disagree	16	Neutral	36	I agree	30	I fully agree	10								
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I fully agree	10																					
<p>Would help you to choose the product you want [Smell online would give you:]</p>	<p>54% of our target agree that smelling online would help them to choose the product they want.</p>	 <p>A horizontal bar chart showing the level of agreement with the statement 'Would help you to choose the product you want [Smell online would give you:]'. The x-axis represents the number of responses, ranging from 0 to 60 in increments of 12. The y-axis lists the agreement levels. The bars are purple.</p> <table border="1"> <thead> <tr> <th>Agreement Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>I fully disagree</td> <td>6</td> </tr> <tr> <td>I disagree</td> <td>6</td> </tr> <tr> <td>Neutral</td> <td>6</td> </tr> <tr> <td>I agree</td> <td>54</td> </tr> <tr> <td>I fully agree</td> <td>24</td> </tr> </tbody> </table>	Agreement Level	Count	I fully disagree	6	I disagree	6	Neutral	6	I agree	54	I fully agree	24								
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I fully disagree	6																					
I disagree	6																					
Neutral	6																					
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I fully agree	24																					

Population characteristics	Female	44%
	Male	56%
	Student	90%
	Intern	5%
	Other	6%
	Halmstad student	59%

## 5. Analysis

The aim of this final part is to present and analysis the results and make a correlation with all the theories developed in the frame of reference. This analysis will allow us to make a conclusion concerning our research question and so on, our thesis.

### 5.1 The technology

As we saw in our theory, nowadays, technologies are becoming more and more efficient; it is now possible to be connected 24h24 whether at home, in the car or in the street. Laptops have taken the front on computers, smartphones have become an essential tool for youth, they use it anywhere and at any time. (McCrindle, 2003)

In fact, 47% of the studied population are using the most their Smartphone against 38% for their laptop; 58% declare spend more than 2 hours a day on internet. We can notice that 45% of the studied population states encounter the most advertising on the social networks against 35% on music hosting websites.

Regarding to Dawn B. Valentine, Thomas L. Powers, (2007) The principal key characteristic of this generation is that they are all born in a media-centre area, living between the new technologies, internet, innovations and so on, the generation Y wants to always stay connected; it has become an essential part of life for students and young professionals. All businesses and organizations are aware because they are the future.

*The online scent diffuser as a new technology.*

According to Stephane Degor, (2012) this technology represents a major potential market, in fact, it will inevitably be necessary for perfumers, florists, travel agencies and for many other sectors such as video games, in order to make them more real.

The cost of the scent diffusers is now around 400 € each, but could drop to 150 € the unit in 2 years; the logical solution to launch this technology into the mass market is that hardware manufacturers and publishers operating system directly integrated diffuser in the PC. It will be necessary to standardize the device at an international level. (Stephane Degor, 2012)

This is a cutting edge technology, a new concept and only few peoples and companies are informed about that.

In fact, 80% of the responders do not know this technology which allow people to smell through their laptop/smartphone/tablet; against 20% of the population declares heard about the olfactory marketing online through Internet, specialized magazines, TV, and by other people via word of mouth recommend.

## 5.2 The olfactory marketing

In the theory, we saw that smells (Olfactory system) generate strong emotional reactions and marketers are using them in several manners to reach us. Indeed, Scientific studies have shown that 75 % of our emotions are generated by the smell; moreover, in our brain, taste and smell are connected to the same neurons, which increases the impact of smell on our behavior.

As we developed in the theory, aside from products, olfactory marketing can also be found in the point of sale through scent diffusers; brands are using this technique in order to broadcast odors for the customer to stimulate the act of buying and give a better perception of the brand, mainly in food, health and beauty shops. Even if, differences exists by gender, age, culture and the internal state of the body, which explain that not everyone responds to the same stimuli. We can notice that 78% of the studied population declares felt comfortable in shops thank to the smell in it.

### *5.3 The olfactory experiential marketing online*

In this part, we are analyzing the results concerning the main topic of our thesis which is the olfactory experiential marketing online.

According to the data we have collected in our survey, people are not aware about the technology of the smell online. Indeed, the results say that 80% of the responders do not know the new technology of the smell online. The fact this technology is pretty new and not officially launched yet might explain this results. Also, this can be a new opportunity for the companies to surprise the consumers and make them having a new experience. So on, the companies may have the possibility to develop new strategies totally unknown and create a differentiation towards their main competitors. This survey also helped us to understand how the “aware people” heard about the olfactive sense online. The 23% of the people knowing this technology read it in magazine or in special websites. This results shows that the communication is not really developed about this topic and so on, creates an opportunity to surprise the consumers.

To continue, the results of the survey show that 74% of the respondents are willing to try the smell online. To traduce this number, we can admit that the population is open to the new experiences. As the respondents are the generation Y, we can relate this point with the theory concerning this generation. As developed above, the generation Y was born in a technology area, which explains why they are that open-minded to try new experiences, and more, technological experiences (Dawn B. Valentine, Thomas L. Powers, 2007). What we can say is that in general, the olfactory experiential online involves an interest in customers' minds and so on, in the generation Y's mind ! Actually, the generation Y is attracted by this new technology for many reasons we collected during this survey. Indeed, if we summarize the respondents' answers, we can say that they would like it because it is new and innovative and also because it would help them to chose the product they want to buy. Those reasons are in a perfect correlation with the theory demonstrated in the frame of references. Nevertheless, if the 28 other percent do not want to try it is more because they do not see any interest and do not want to be impacted by any smell during their shopping session.

Then, we have asked in which area they would find an interest to the smell online. We saw that in majority, they choose the perfumery in the first position, the food in second and finally the cosmetics. In those areas, the smell is needed and very important: it calls the consumer to have a smell experience. The olfactory marketing theory showed up that the smell is one of the strongest sense to develop strong feelings and emotions in people's minds.

More it helps reminding past events and so, consumers are able to refer to a part of their life depending on a smell. Also, we can make a relation between the theory concerning the generation Y and the kind of products they would be interested in smelling: those three areas represents three of the main sector the generation Y is used to buy and so on, matches perfectly with the theory (McCrinkle, 2003).

Finally, does the olfactory experiential marketing online would have an impact on the consumers' minds and so on, on their purchase buying behavior ? According to the data collected 37% of the people agree that the smell online will give the envy to purchase. We can say that there is an impact on their minds but people are not really sure about the way they would be impacted. Then, only 30% of the respondents agree with the fact that the olfactory experiential marketing online will give the intention to go directly to the shop. Throw this result, we can suppose that the olfactory experiential marketing online has to stay focus online, and would have a better impact in the online buying behavior. Indeed, by smelling directly online, the generation Y would be able to purchase directly online and so do not need to go to the shop directly. To finish, 54% of our target agree that smelling online would help them to choose the product they want meaning that more than the half think that smell helps to buy and so, have a direct impact on their minds !

As a summary, we can say that the olfactory sense and the online marketing reunited can make the consumer choosing the product and so, have a direct impact on the consumers purchase decision.

#### *5.4 The psychological data*

Our survey gave us information concerning our respondents. As we have chosen our target, all of them were from the generation Y, meaning that they are all born between the early 1980's and the late 1990's (Daniel Chandler and Rod Munday 2011). More than the majority of people who asked this survey was man, and so, we have more a masculine vision in our subject. More, we can add that not just one kind of activity is represented. Indeed, all the respondents are actives, and are students in majority. Finally they do not have all the same school curriculum because the respondents are not all from Halmstad University. This point gives a diversification of the way of thinking of the respondents.

## **6. Conclusion**

First of all, thanks to this thesis, we have an overview of all the theories related to many points concerning our subject such as the characteristics of the generation Y, the main concepts and strategies of the experiential marketing, how the consumer behave and how they are impacted by their environment. After we made our questionnaire, we are able to answer to our research question which is “how the consumer perceive the olfactory marketing online?”. According to the answers we have received, we can answer to our research question and develop some possible strategies for the future. Indeed, the olfactory experiential marketing online do have an impact on consumer’s mind. As we saw in the results, few people from the generation Y agree with the fact that the olfactory experiential marketing online has no impact on them and more than the majority feel the impact of the smell on their brain and so would like to try the new technology concerning the olfactory experiential marketing online in order to help them making a choice when they purchase online. In general, the population is very sensitive concerning the smell and it can remind them of old memories and so, make them comfortable. So, we can see that the hypothesis 1 is the good one meaning that the consumer perceives olfactory experiential marketing online as having a strong impact on people’s minds.

During this study we focused on the generation Y’s mind because we are from this generation and they are the new consumers. To spread our questionnaire better and to reach our target, we used the social network Facebook on which users are most from the generation Y. But, one of the difficulty we encountered was collect more than a hundred answers. Indeed, the more answer we have, the more precise the results are. Also, it was not possible for us to reach all the generation Y, which count too many people, that is why we just focused on two geographical areas, Sweden and South of France. Here we can say that we have a first overview of how the generation Y perceive the olfactory experiential marketing online which can be studied in a deepest way in further researches. Indeed, many other researches can be made about our topic. For example, a focus group can be studied to have a qualitative answer about how people perceive the olfactory experiential marketing online.

Finally, thanks to this thesis we can develop some theories concerning how the olfactory experiential marketing online could be used. Indeed, as it has an impact on customer’s mind

and purchase behavior, this new technology can be useful to solve the cluttered add market's problem. The companies are now able to create new strategies to catch the consumer better and so on, launch new online advertisings which will make the consumers to experience their brand better. But, we can also have some limits for the technology of the smell online. Actually, as this technology is not officially launched, it is pretty expensive and it needs a lot of equipment to work.

## 7. Annexes 1: Exhalia – The scents diffuser online

Here is the scents diffuser which allow people to smell online. Launched in 1998, the project was born in the department of research and development France Telecom benefited from the development of strong media coverage and sparked interest among customers. It was concluded in 2003 by a pre-commercial experimentation which were present many partners including L'Oréal. The future of this technology for business is clearly identified, but also the various studies have shown real potential of technology in the general public, in video games, television, advertising and e-commerce.



**Picture 1.** The Scents diffuser



**Picture 2.** Refill Cartidges

**Source:** <http://www.exhalia.com/societe/> 2013

## 8. Appendix 1: Questionnaire

### The Olfactory Experiential Marketing Online

We, Julien and Floriane, are making a thesis concerning the olfactory experiential marketing online. The aim of this marketing is to make the customer having a smell experience via the Smartphone, tablets, computers, etc. The smell is the only sense missing on the internet, that's why we have chosen to focus on this one. Our objective is to know what impact this new technology will have on the customers' minds so your point of view about the subject would help us a lot. Thank you for the time you will accord to us to answer to our survey.

\* Required

Which technological tool do you use the most ? \*

- Home computer
- Laptop
- Smartphone
- Tablet

How long time a day do you spend on internet ? \*

- Less than 30min
- Between 30min and 1 hour
- Between 1 hour and 2 hours
- More than 2 hours

On which website do you encounter the most advertisings ? \*

Popup, banners, etc

- Social Network
- Brands website
- Selling website
- Host music and video website

On a scale from 1 to 5, which impact do the web advertisings have on you ? \*

- 1 2 3 4 5
- Low      High

Olfactory marketing is the action to use odors for marketing and commercial purposes. You can encounter it in most of the shops (smell directly in the shop, tastings, etc). Did you already feel comfortable in shops thanks to the smell in it ? \*

- Yes
- No

Why ? \*

On a scale from 1 to 5, does smelling a product will have an impact on your buying behavior ? \*

- 1 2 3 4 5
- Low      High

Did you hear about that new technology which allow people to smell through their laptop/smartphone/tablet ? \*

- Yes
- No

If yes, where ?

If you had the possibility to smell online via your smartphone/laptop/tablet, would you like it ? \*

- Yes
- No

Why ? \*

On which sector would you have an interest to smell online ? (3 choices) \*

- Food
- Clothes
- Appliances
- Cosmetics
- Perfumery
- Furniture
- Sport
- Beverage
- Other:

Smell online would give you: \*

	I fully disagree	I disagree	Neutral	I agree	I fully agree
The intention to buy the product	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The intention to go directly to the shop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would help you to choose the product you want	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you belong to the Halmstad University ? \*

- Yes
- No

Are you ? \*

- Student
- Intern
- Teacher
- Other:

Please indicate your gender \*

- Male
- Female

What year were you born ? \*

## 9. Sources

### B/

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