

# SMOKELESS TOBACCO - SNUS

## CRITIQUE OF USAGE PATTERN & INFLUENCING FACTORS

Master thesis in Business and Informatics

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**English title:**

Smokeless Tobacco – Snus: The critique of Usage Pattern & Influencing Factors

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As the global market place becomes more integrated and tensed, there is a shift from the traditional marketing whereby attention is given solely to the sale of a product to a more customer-based marketing. Customer involvement in the processing of a product is the highlight of this phenomenon. By this their needs and preferences for a product are well addressed and base on this management can make effective decisions. Customer usage pattern and its influencing factors have become a key for business decision-making. Customer based notion is well known by its effective result in any kind of product. They could help businesses to manage, to adjust strategies to better match with the customers expectations in existing markets. And to enter new markets, where the companies have no historical databases of the local customers, the Snus usage pattern and its influencing factors in previous growth markets are helpful to make use of.

The motivation of this thesis therefore, is to find out the usage pattern and the influencing factors of snus (smokeless tobacco) in its growth market such as Sweden and the United States where until recently gaining popularity. This thesis will make use of related theories, previous studies on snus and behavioral pattern, influencing factors and observation in Sweden and in the United States. The findings of this thesis and the influencing factors on snus usage behavior could be reference guidelines for decision makers in the tobacco industry in already existing snus markets and potential markets for the product in places such as Vietnam and other parts of world. Aside these, the findings will be helpful in managing tobacco companies in general and snus in particular in existing markets.

**Keywords:** Smokeless Tobacco, Snus, Usage Behavior Pattern, Influencing Factors

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# 1. Introduction

## 1.1 Background

Snus is one kind of tobacco that is smokeless. It has been consumed since the early 19<sup>th</sup> century in Sweden and other parts of Europe. Sweden is the most famous among European countries concerning the use of snus. It is very popular among male Swedes in particular. With over ten companies producing over 50 brands of snus. The daily consumption is quite high compared to the other European countries where snus is also consumed. Snus is illegal within the European Union though there are some exemptions. Norway is another country in Europe where snus is consumed. Snus is also becoming increasingly popular in the United States market. The tobacco companies in the United States like Phillip Morris USA, R. J. Reynolds Tobacco Company and the US Smokeless Tobacco companies having their own brands of Snus.

Though the conventional smoked tobacco is quite prominent in other parts of the world such as Asia, Africa, Latin America, Australasia, and the Middle East, snus consumption is quite a strange phenomenon in these regions. In Asia for example, for a country like Vietnam with a population of over 80 million has the highest smoking ratio in the world (Christopher N. S. Jenkins, MA, MPH; Pham Xuan Dai; Do Hong Ngoc, MD; Hoang Van Kinh; Truong Trong Hoang, MD; Sarah Bales, MA; Susan Stewart, PhD; Stephen J. McPhee, 1997). This high rate of tobacco consumption makes Vietnam a potential market for the production and marketing of snus if their smoking habits could be influenced.

Snus was introduced into Europe in the 15<sup>th</sup> century. This was during Christopher Columbus first voyage to America in 1492 where natives were seen inhaling this powder-like substance through their nose. Later in time Spanish and Portuguese sailors continued to bring the tobacco plant into Europe (Svenskt Snus 2011).

The usage and influencing factors for the conventional smoked tobacco and that of snus is quite different. Snus is consumed by placing the wet paper-packed tobacco under the

lips for some few minutes. Influencing factors may include context and form of consumption as well. Context as an influencing factor can be gender, in Sweden the ratio of males to females for snus consumption is 8:1 (Digard, Errington, Richter, & McAdam, 2009). The differences in usage and influencing factors between the conventional smoked tobacco and that of snus explains the need for different strategies the launch and management of the product especially in new markets such as say Vietnam. It is irrational to apply the same strategy for both kind of product as their consumption is influenced by different factors.

There have been many studies and research on snus and its products, such as these following studies: Patterns and behaviors of snus consumption in Sweden (Digard, Errington, Richter, & McAdam, 2009); Cigarettes and oral snuff use in Sweden: prevalence and transitions (Furberg et al. 2006); A comparison of consumption behaviour in Swedish users of loose and portion snus (Richter et al. 2009); Evolving patterns of tobacco use in northern Sweden (Brad Rodu et al. 2003); etc. Majority of these studies have been conducted all in Sweden, where the product is consumed. Daily consumption of snus in Sweden is quite high among other countries where snus is consumed. Most of the studies have been financed by the tobacco companies in Sweden and has captured users in entire Sweden. Whiles most of those from Sweden have focused on consumer behavior and usage patterns, some studies have also examined on the United States as well on snus, most of those conducted in the United States have focused on the health implications of snus consumption to the users, such as the following studies: Tobacco harm reduction: an alternative cessation strategy for inveterate smokers (Rodu & Godshall 2006); The potential impact of a low-nitrosamine smokeless tobacco product on cigarette smoking in the United States: Estimates of a panel of experts (Levy et al. 2006); Estimating the Risks and Benefits of Nicotine Replacement Therapy for Smoking Cessation in the United States (Apelberg et al. 2010); etc.

Snus consumption is legally in some markets but it is an illegal product in other markets. This research focus on markets that snus is legally consumed, especially the two biggest market shares of the two biggest snus companies all over the world which are British

American Tobacco and Philips Moris. As an snus usage pattern and influencing factors research, this thesis takes a strong motivation from the Sweden and the United States markets for reference.

## **1.2 Research purposes:**

Snus is a product that is well known in Europe and in the United States but in Asia generally and in Vietnam in particular, is a quite new product. There have been numbers of research on smokeless tobacco usage pattern in both Sweden and the United States. Each of them have been conducted in different parts of both countries with different methodologies which are usually based on a particular aspects of the topic the author may be concerned only.

This research aims at establishing the usage pattern of snus based on previous findings. Since Sweden and United States are now the biggest markets of smokeless tobacco, the findings of their customer's patterns must be useful guidelines for companies, managers or those who get involved in launching snus to new markets such as Vietnam.

## **2 Methodology approach**

### **2.1 Research approach**

This paper is a critical review of the previous research and studies on the usage and influencing factors of smokeless tobacco. It therefore, critically reviews journal articles on the usage and influencing factors of smokeless tobacco. A critical review guideline that was originally developed by the McMaster University Occupational Therapy Evidence-Based Practice Research Group, and revised by Letts et al., 2007 has been applied in this thesis. The design type of this thesis is inspired by grounded theory, which focuses on the task of theory construction, it is an dependent on continuous data analysis process, the theories and previous studies are seen as a developmental process and therefore be able in capturing the nature of social interaction and its structural content. (Letts, L., Wilkins, S., Law, M., Stewart, D., Bosch, J., & Westmorland 2007).

General marketing literature has shown that qualitative research is in the discipline, the reason maybe because of the propensity to apply qualitative approaches (Milliken 2001). The number of researches about snus usage pattern in Sweden or other markets is not much, but most of them are built based on the data analysis results from a huge number of respondents from many different cities and regions across countries. For instant, the researchers contacted 62707 people throughout Sweden country to collect sample data (Digard et al., 2009) ; or the huge size sample that used in research of Helena Furberg & her research team was a Swedish Twin Registry (STR) which contains data of 114 years, on current vital status, marital status, address and place of birth for more than 99% of all 160000 Swedish twins born between the year 1886 to the year 2000 (Furberg et al. 2006). These showed the past usage patterns, intentions and events, which related to the findings, meaning and value. Each of the research has different type of approach, methodology, findings and arguments. These are previous theories and studies's findings about snus usage pattern and its influencing factors.

John Milliken mentioned in his paper about qualitative research and marketing management that "The trends of the implicit critique of science and quantitative methods have fallen under the rubric of "qualitative research". The driving force behind this move

has been the search for knowledge” (Milliken, 2001). Hence, in this thesis, qualitative research method is applied by document review, to connecting researches’ finding from many perspectives, angels of evaluation. Since there is no such type of research like this, and it is necessary to review those research findings to build up a general usage pattern of snus users in critical approach way (Letts, L., Wilkins, S., Law, M., Stewart, D., Bosch, J., & Westmorland 2007), it might be useful as a summarized experience about snus usage pattern when launching snus to a totally new market where snus is a new vocabulary for the local people such as Vietnamese.

The strategy for the qualitative analysis and interpretation applied in this thesis are based on the findings of Evert Gummesson (2005). He came up with strategies in a study about qualitative research method in Marketing in the year 2005, one of them was called as the “Inductive research and grounded theory” (Gummesson & Evert 2005). This thesis therefore, analyzes and interprets the findings of previous researches by:

- Considering all the factors, which come together to influence the behavior patterns of the snus usage but not individual factors since a lot of factors combine to influence the behavior of humans.
- Making sure the data used in these journal articles are empirical and therefore credible to rely on. These articles were reliable and showed accepted credibility.
- Combining finding from previous journal articles to a sizable amount to ease analysis. This was carefully by acquiring all the useful information to avoid losing their real substance.
- Making sense of the data by putting the all the data from previous articles and studies together to make sure we use theme effectively without losing their real substance.
- Highlighting the common ideas between the previous findings to create a clearer and transparent picture to serve as the bases for the review.
- Contracting and drawing a linkage between the previous findings.

## **2.2 Data collection**

Data for this qualitative research is collected mostly from Summons, the search engine of the University of Borås library. Beside the journal articles found on Summons some other trustworthy and useful articles were also collected from the Google Scholar system. On both Summons and Google Scholar the key words used for the search are: smokeless tobacco, snus, usage behavior pattern, and influencing factors. Some of these found articles were useful to this study and were therefore, made use of in this paper. Data collected from these articles included the influencing factors for snus usage pattern, influencing factors includes, and the research findings.

This thesis also made use of secondary data from producer companies of snus. These include information from the websites of snus producers in the Sweden and the United. Producer companies included Swedish Match, British American Tobacco (Sweden), Imperial Tobacco Group (Sweden), Japan International Tobacco from Sweden and United States tobacco companies.

The previous studies were conducted in Swedish and the American markets and secondary information, which have been chosen, also were from relating companies from the same countries. This is because snus in these countries serves as the most important market for the consumption of Smokeless tobacco. Sweden has a huge market for snus and its usage is dated back as hundreds of years ago. Whiles the United States market is relatively new but has a rapid growth of snus usage.

### **3 Theoretical study**

#### **3.1 Industry overview**

##### **3.1.1 Tobacco in general**

Tobacco is a plant from the Nicotiana. The leaves of this plant is the part consumed. It is consumed by smoking, chewing, snuffing, smoking or burning as cigarette. People from different parts of the world consume tobacco in different ways. Occasionally they add additives to it and process it in their own way and then consume it. The common form of tobacco consumption is through smoking. Tobacco companies are the major suppliers of smoked tobacco (in term of cigarettes and cigars) some smokeless tobacco products are also produced and supplied by tobacco processing companies. With tobacco companies, production is done through a lot of stages including drying, termination, addition of additives rolling and packaging. Major tobacco companies in the world includes: Adris, Altadis imperial tobacco group, Japan international tobacco, Philips Moris, Rolhman international, Scandinavian tobacco group etc. Most of these companies are conglomerates and are fund in several countries serving a large number of customers with different varieties of brands and sub brands. Major tobacco growing countries are: China, India, Brazil, US, Indonesia, Russia, European Union, and Turkey.

##### **3.1.2 Briefly about establishment of snus in Sweden**

The history of usage of snus dates back as far as the 16<sup>th</sup> century. The first name came in 1637 from Finland. Snus was expensive then and was used by high-class people. With the cans designed with precious minerals. In the 1700 tobacco industries started production and tobacco was grown in many areas of Sweden. During the 1800s, local variety of snus were produced and supplied by suppliers such as Peter Swartz, JA Boman and Eltan. Eltan was then the largest brand. Snus were differed from each other by their grade: No 1, No 2, and No 3 (Swedish Match 2011)

### **3.1.3 Snus market**

Sweden is the traditional home of snus. It has the highest relative number of snus usage in the world. About 17% of Swedish males use the product (Arabi 2008), 19% of adult males and 1% of females use snus daily in Sweden (Fagerström & Schildt 2003). With this, Sweden accounts for the country with the most usage of smokeless tobacco, snus. This usage pattern accounts for the countries achievement of the only European country reach the world health organization (WHOs) goal of less than 20% daily smoking provenance by the year 2000 (Fagerström & Schildt 2003). Often parts of Scandinavian like Norway, Finland, Denmark, and Iceland are also active markets of snus. Generally, within the European Union all forms of smokeless tobacco including snus is prohibited. Sweden had to be exempted though government interventions when they jointed the European Union in 1992. The largest snus manufacturing in Sweden is Swedish Match which produces over fifty varieties of Snus (Table 1). Other Snus producing companies includes British American Tobacco Sweden, Imperial Tobacco Group and Japan International Tobacco (Swedish Match 2012). They together have fewer brands between them compared to Swedish Match.

Another active snus market share is the United States market. The use of snus is rising in the United States due to ban on smoking in public places. It used to be low income earns in rural communities who were familiar with snus in the early years. But there has been a charge in this trend. The working population and urban dwellers have been actively involved in the snus usage trend.

The growth of snus usage is projected in increase in the coming years. Reasons being: the ban on public smoking in many countries and its lower harmful effects compared to combustible tobacco. New markets such as Russia, Asia, and South Africa are likely to be explored. Existing markets like the United States, Norway and even Sweden is likely to expand.

## **3.2 Literature review**

### **3.2.1 Usage behavior**

Tobacco is consumed or used in many different forms. People from various parts of the world, cultures and tradition have in one way or the other their own way of consuming or using tobacco. Generally, tobacco usage by humans can be broadly classified into two distinct forms: combustible (smoked) tobacco and smokeless tobacco.

Combustible tobacco is the form, which people burns and inhale the smoke while with smokeless like the name suggests consumed without burning. Smokeless tobacco comes in the different forms also: chewed tobacco, snuff etc.

Snus is a form or type of tobacco that is used without burning. Snus is widely consumed in Sweden, America and other Scandinavian countries (Hansson et al. 2011). Snus usage is now extensively used in other parts of the world like South Africa (Hansson et al. 2011), also in India and others in south east Asia but its usage is banned in the European Union (Arabi 2008).

The main reason why snus usage is increasingly becoming popular in other parts of the world is because of the ban on public smoking (Arabi 2008). The ban on smoking in public areas is estimated to cause the use of smokeless tobacco products, which includes snus to go up. Like other smokeless tobacco, snus is less harmful to human health as compared to the regular smoked tobacco (Hansson et al. 2011). Unlike smoking, which comes with a lot of health, related problems what usually leads to death. Snus usage effects have not yet been clearly established by research. Effects of smoking tobacco includes: low body mass (loss abdominal obesity); effects on body fat distinction (or abdominal obesity); defective glucose resistance (Hansson et al. 2011); weight, high blood pressure, and heart beat rate (Arabi 2008), oral cancer (Rodu et al. 2002), also its cardiovascular side effect is low (Arabi 2008). The chance or possibility of getting a tobacco related cardiovascular complication is much lower with the use of snus or other kinds of smokeless tobacco products. Though the amount of nicotine in smokeless tobacco is higher than that in smoked tobacco the complications connected to the

cardiovascular system of users is high. According to Arabi (2008), smokers cardiovascular systems are affected by smoking because of the toxic substances, which is released during the burning of tobacco in smoking.

Snus usage can effectively be an alternative to smoking. Since the implications of smoking to smokers and even non-smokers who are often exposed to smoke from tobacco smokers is increasingly getting severe. This trend has been a worry to the World Health Organization (WHO) and many other organizations. In a research conducted by Rodu, Stegmayr, Nasic, & Asplund in 2002, they formed that Swedish men have the lowest smoking related deaths (Rodu et al. 2002) and lower rate of smoking. They also formed that it is common for smokers to switch to snus usage but not from snus age to smoking (Furberg et al. 2006), and also snus usage has reduced smoking in Northern Sweden (Rodu et al. 2002).

Snus usage is different between genders. Like all other forms of tobacco products (Combustible and smokeless types) males are associated most with snus than females. “Snus is far common among Swedish males than females” (Furberg et al. 2006).

Snus usage is a product for a smoke free environment (Mejia & Ling 2010). This means smokers as well as non-smokers can enjoy a smokeless environment free tobacco smoke related diseases. Smokers not only put their health in danger but also non-smokers who may inhale the smoke into their system as well. This can reduce the level or numbers of lung cancer and smoke related diseases, which currently exists.

Usage pattern of male and female users are different and it is also different depending on age, but the snus usage pattern differs between gender rather than age. The differences between males and females in terms of : quantity of daily snus consumed, size of pouch or loose snus, usage time and duration, color and flavor of pouch (usually brown or white color); and the size of pouch (which may be small, medium or large size) (Digard, Errington, Richter, & McAdam, 2009)

Though not totally safe, snus can be a better alternative to smoking considering the health hazards and implications to users. The usage pattern and behavior influencing factors show that snus have been accepted by many people, especially Swedish, it is

considered as much safer to consume snus than combustible tobacco. It is not by chance that Sweden has the lowest rate of smoke-related deaths and lower rate of smokers among man compared to the rest of the world. The properties and usage pattern of snus compared to smoked tobacco makes it a potentially profitable product in the tobacco industry. Especially when smoking in public places are been ban in many countries of the world.

### **3.2.2 Addictive usage behavior**

#### **Drug addiction:**

The royal society of Canada committee describe the following to be definition of drug addiction:” drug addition as a strongly established pattern of behavior characterized by “ The repeated self-administration of a drug on amounts which reliably provide reinforcing psychoactive effects and great difficulty machining voluntary long term cessation of such use, even when the user is strongly motivated to stop” (Fagerström & Schildt 2003). An individual finding himself in a behavior which he knows is having negative effects on himself and whose who care about him but not being able to put a stop to that behavior is an addict (West 2001). Addiction starts after an individual has been exposed to a substance and after that seeks repeated use of that substance which then become serve overtime with the individual trying to regain control but not being able or not for a short time period.

Drug that are usually abused and are addictive includes: alcohol, cocaine, crack, heroine, etc. structural and social factor contribute to the quantity and possibility of drug usage (Fagerström & Schildt 2003).

Some addicts are exposed to not a single drug usage, but two or three or more of different kinds of drugs. Research shows that 90% of alcohol abuses also smokes cigarette (Fagerström & Schildt 2003). Therefore smoking and alcohol abuse is common among alcohol abusers and smokers. This situation is complex because the nicotine dependence

on how much these people rely on nicotine is higher than smokers who do not take alcohol. Abusers of two or more drugs have a tough time to back out a quit.

### **Smoking addiction:**

The addiction in cigarette smoking is due to nicotine, which is contained in it. Smoker's ability to withdraw or stop smoking depends on the amount of nicotine he is exposed to. This makes cigarette smoking very difficult to withdraw from. Withdrawing from cigarette smoking by many users of tobacco or smokers leads to physiological feeling which are called withdrawal symptoms (Fagerström & Schildt 2003)

Withdrawal supporting for nicotine according to Fagerström & Schildt are: craving for nicotine, difficulty in concentrating, restlessness, frustration, anger, anxiety, decreased heart rate increased appetite, weight gain, insomnia impatience, disrupted sleep and these consequences are different for different individuals. Two or more of these symptoms together forms withdrawal complications, because they have to deal with two or more addictive substances. The risk associated with people who smokes and also abuse alcohol. For examples is large in the sense that they will have a much higher level of nicotine dependency compared to those who smokes but do not drink. Fagerström & Schildt stated that these kinds of people will have to deal with two drug problems: alcohol and cigarette.

Nicotine dependence and the level of depending on nicotine depends on is influenced by genetic and psychological factor and the coming together of two or more of these factors (Schmidt et al. 2010). That is the differences in the make of humans may mean different responses to nicotine because their genetic make up are different. Psychosocial factors may be occupational (stress at work place) and personal (lifestyle) have effect on smoking (Schmidt et al. 2010). The extent and the beginning of smoking may be influenced by these common examples. Smokers in order to overcome stress in the work place or even at home have made them stick to smoking. They feel good or much better when they smoke, and hence, they rely on smoking to handle stress. Lifestyle is another important factor. For example, people in the low-income bracket are likely to smoke or a smoke more compared to people with high-income.

### **Snus – smokeless tobacco addictions:**

Smokeless tobacco the same like any other type of tobacco contains nicotine. Snus like other smokeless tobacco or smoked (combustible) tobacco is addictive. Users find it challenging to quit. This is due to the nicotine contents in tobacco products. Once they use snus most men continue to use it than quitting from usage in their lifetime. In Sweden men who have once used snus continue to use it or tobacco because they find it difficult to quit from the use of tobacco (Furberg et al. 2006). Although the risk involved in snus usage is low, risk compared to combustible tobacco, it is addictive (Heavner et al. 2010). In a study conducted by Heavner, Rosenberg, Tenorio, & Phillips in 2010, they asked retailers whether snus is addictive or not, and the answers they had included – “ This product is highly addictive” (Heavner et al. 2010). Warning signs show on snus packages also suggests that the product is addictive.

In summary, tobacco products, including snus – the smokeless tobacco are highly addictive products. Therefore the customer usage behavior is different, compared with other daily using products and other FMCG (Fast-moving consumer goods) products.

### **3.3 Snus usage pattern**

#### **3.3.1 Discover the snus usage pattern by market research approach:**

In 2007 Helena Digard, Graham Errington, Audrey Richter, and Kelvin McAdam conducted an investigation on the usage pattern of Snus in Sweden. This study was completed in 2008 and was financed by the British American Tobacco (Digard, Errington, Richter, & McAdam 2009). 2914 respondents selected randomly from all over Sweden and interviewed on the telephone. The respondents answered questions on their usage behavior of Snus and other tobacco products. They were also asked on whether they are dual users of Snus and other tobacco products.

Findings of this research brought new insights of Snus consumption pattern in Sweden, which is argued by the four of the following factors: (Digard, Errington, Richter, & McAdam 2009)

- Differences in daily consumption
- Length of time the users usually keep the Snus products in their mouth
- Differentiate patterns of use between different gender: males and females
- Simultaneous use of multiple pouches in a small proportion of users

Significant findings of the Snus usage pattern in Sweden are described as follows: (Digard, Errington, Richter, & McAdam 2009)

#### **Demographics of Snus usage:**

**Gender:** Male to female consumer ratio is 8:1. While female users prefer Pouched Snus, male users are distributed approximately equally between pouched and loose Snus. Few respondents (3.5% of the sample population) use both types of Snus. Therefore, usage pattern of Snus is called “sole-loose” or “sole-pouched Snus users”.

**Age:** Snus users are in general slightly greater in proportion for ages between 30 and 55. However, the majority of users between the ages of 18 and 29 prefer pouch Snus to the loose type.

#### **Patterns of tobacco use among daily Snus users:**

The findings show that:

- 12.8 % of snus users also use other tobacco products, but very few users use snus with other type of smokeless tobacco products such as chewing tobacco.
- 12.6% of the daily users use Snus and one or more types of cigarettes, 9.8% of the respondents are also cigarettes smokers, the interesting information is 53.5% of them did it daily.

- Styles of pouch: (mini, large, maxi pouches) the result shows that female users prefer mini pouches (38.4%) while only 6.5% of male users prefer this type of snus.
- Color of pouch: (brown and white pouches) 60.7% of males respondents prefer brown type while 65.4% of female users prefer white type.
- Number of pouches used at a time: 89.2% of the respondents use one pouch at a time while the remaining respondents use two or more pouches at the same time.

### **Quantity of Snus used per day**

- In the average: Pouch users use approximately 11.8 g. per day (calculated from packages) and 11.1 g per day (calculated from portions) while loose users use approximately 29.3 g. per day (calculated from packages) and 32.1 g. per day (calculated from portions).
- Female users use numbers of pouches smaller compared with male users. However, for loose snus, male and female users are very similar

### **Normal usage time**

- On the average, snus users usually keep Snus in the mouth for more than an hour while female users kept Snus for relatively shorter period of time (average of about 47 minutes).
- Shortest usage time is 20 minutes for females and 30 minutes for males. The longest being 15 hours in males and 7 hour in females.
- Snus is used for about 10 to 12.5 hours of use per the day in males. The number is smaller in female users. About 7.5 hours.

### **Location in mouth and portion movement during use:**

- The results show that both pouched users (96%) and loose users (99%) put the portion between their gum and their upper lip.
- Moving around the snus products during use behavior is found in 36.5% of pouched users and 18.9% of loose users.

### **3.3.2 Discover the snus usage pattern by product development approach:**

Also in 2007 to 2008, another research was conducted in the United States to find out the usage pattern of Snus in the US market. However, whiles Helena Digard, Graham Errington, Audrey Richter, and Kevin McAdam used market research methodology in Sweden, Adrienne B. Mejia, MPH, and Pamela M. Ling, MD, MPH chose product development approach to discover the Snus usage pattern in America.

While in the research conducted in Sweden primary data was collected through telephone survey methodology, the research in the United States used secondary data mostly. This data were collected from the secret documents of Philip Morris and RJ Reymonds (major tobacco companies in the US) that had both introduced Snus products to the US market. Aside that, library resources and other sources from the internet were also used. This data collection technique is called “snow-ball” and it searches for contextual information from relevant documents. (Mejia & Ling 2010)

Findings in snus usage pattern:

There were a number of findings in this research, but those relating to usage pattern were few. It provided information on Snus usage from the very beginning upon its launch in the US market.

In more detail (Mejia & Ling 2010):

- 1968: Snus users were mainly from the lower income bracket. They were mostly unskilled blue-collar and farmers. It was consumed in the rural areas mostly as compared to cities (Mejia & Ling 2010)

- 1970: By focusing on the attitude toward the products, usage pattern was described based on the special contexts such as factories or mines where smoking is prohibited in order to be a calming, relaxing, and tension-reducing experience, pleasantly associated with outdoor activities (Mejia & Ling 2010)
- 1978: Smokeless tobacco users were mainly male farmers, athletes, and factory workers. Their average age was between 40 and 50. The quantity of man users is double compared with females (Mejia & Ling 2010)
- 1980s: Users are described as primarily older farmers and factory workers ageing between 18 to 35 years. Their education level was no more than a high school and their annual income less than \$25,000. 25% of smokeless users also smoke cigarettes and use moist snuff. (Mejia & Ling 2010)
- 1990s: Prohibition of smoking in workplace and cultural changes led to a larger market for smokeless tobacco. More young and educated adults began the use of snus (Mejia & Ling 2010).
- 2006: More dual users of both snuff and cigarettes because of the perception that it's of less risk, fewer regulations, and lowly priced (Mejia & Ling 2010).

### **3.3.3 Discover the snus usage pattern by follow-up MONICA project: (B Rodu et al. 2003)**

In 2003, Rodu, Stegmayr, Nasic, Cole, & Asplund conducted a research on snus in Northern Sweden. The aim of their research was to study the pattern of snus usage in which was then developing from 1986 to 1996 (B Rodu et al. 2003). The methodology they used was a follow-up study of the World Health Organization's MONICA project (Multinational monitoring of trends and determinants in cardiovascular disease). The MONICA project was to observe the trends in cardiovascular diseases and then associate these patterns in a population over a period of 10 years in centers across the world, in 1980s, the data for their follow-up study in the MONICA system was entered in sets in 1986, 1990, and 1994 and followed up in 1999. The study was conducted in Northern Sweden. Information was collected from 2407 people (1651 men and 1756 women) aged

between 25 to 64 years. The data collected during entry and also during the follow-up was tobacco usage. (B Rodu et al. 2003)

Generally, the usage pattern stability in Northern Sweden, which is the percentage of subjects in a particular tobacco use category at entry who were in that category at follow-up, of man smokers is less than women smokers (69%). Compared the stability of snus and cigarette among man users, the research found that: (Brad Rodu et al. 2003)

- Snus was the most stable form of tobacco since only 2% of snus users switched from snus to cigarettes and only 20% quit tobacco altogether.
- Cigarette users were less stable when their rate is 54%, in which 27% of smokers were tobacco free and 12% used snus at follow-up.
- Dual users that used both cigarette and snus was the least stable group when their rate is 39%, in which 43% switched to cigarette users and 6% changed to be cigarette smokers.

In the perspective of reducing smoking, the research confirmed the remarkable result for the role of snus use in declining smoking rate among men smokers and incipiently amongst women in Northern Sweden. It also suggested there should be a discussion in global scale about using smokeless tobacco - snus as the method to reduce smoking (Rodu et al. 2002)

### **3.3.4 Discover the snus usage pattern in teenager users:**

Post, Gilljam, Rosendahl, Meurling, Bremberg, and Galanti conducted their research in 2005 in a district of Stockholm, the Swedish capital city. Their aim or study purpose was to confirm or certify the usage of cigarette and snus among teens (The final junior high school students) (A. Post et al. 2005)

#### **Methodology:**

Cross sectional research design of a 520 final junior high school students with mean age of 15 years. They answered questions of usage pattern concerning: frequency, place and

period. They also had their saliva collected to verify whether they have never or are using tobacco. Afterward, by comparing the answers from questionnaire and the result from saliva test, the research explored the validity of self-report on tobacco usage pattern. (A. Post et al. 2005)

The research confirmed that the validity of the reliability among adolescent self reported smoking was accurate whereas little was known about smokeless tobacco users. Self-report compared with saliva cotinine test shown 98% concordance. ( a Post et al. 2005)

Significant findings of the snus usage pattern in the capital of Sweden of 15 years old teenager users are described that 22% of 520 students reported monthly tobacco use. Among these 150 students, there were: ( a Post et al. 2005)

- 67% were exclusive cigarette smokers
- 82% were exclusive snus users
- 94% were mixed cigarette and snus users

Rodu, Nasic, Cole conducted a research to study the prevalence of snus use and of smoking among 84472 schoolchildren from 1989 to 2003. All the boys and girls students were 15-16 years old and were living in Sweden during the 15 years of research (Rodu et al. 2005)

Significant findings of the research shown that the prevalence of tobacco use declined both among both boys and girls. Even though, smoking rate of among girls was always double that among the boys' group. Patterns of tobacco use were similar among the occasional and regular users. Particularly as below: (Rodu et al. 2005)

- Regular smoking among boys declined from 10% to 4%, contradictorily, their snus use was about 10% in the 1990s but increased to 13% by 2003.
- Regular smoking among girls was declined from 20% to 15%.

Therefore, snus products not to be considered as a gateway to smoking among Swedish youth, but a product type that helps to reduce smoking among the boys.

### 3.3.5 Discover the snus usage pattern among US men (National et al. 2011)

Rodu and Cole used data from the National Health Interview Survey (NHIS) to define and compare smokeless tobacco usage trend among US men. The NHIS collects information about smoking in US household every year (National et al. 2011)

Methodology:

They relied on NHIS data from 2000 to 2005 for this study. This secondary data had few questions on smokeless tobacco usage. (National et al. 2011)

Findings: (National et al. 2011)

- 2000-2004: there were 4.14 million American men used smokeless tobacco while in 2005, there were 4.44 million reported used.
- Both former users and never users increased in this periods
- Smoking also went down in the study periods
- Smokeless tobacco users had high school education while 41% were bachelors degree holders
- Smokeless tobacco users were living in rural and small cities (only 2% in big cities)
- Smokeless tobacco users were mainly low-income people
- In both years small % of smokeless tobacco users still smoked few cigarette than those who smoke only
- In 2000: 41% used snuff, 44% chewed, 13% both snuff and chewed
- In 2005: 51% snuff, 33% chewed, 16% both types
- Smokeless tobacco usage decreased in the 1980's and 1990's
- Most people using smokeless tobacco had changed from smoking to smokeless tobacco or smoke but still use ST.

### **3.3.6 Discover the snus usage pattern: Psychologist, attitudes to cessation counseling: (Hjalmarson & Saloojee 2005)**

This study was to investigate whether psychologist helped their clients who uses tobacco to stop or they stop by themselves. Furthermore, the research also aimed to discover smoking pattern among psychologists in Sweden.

Methodology:

36 item questionnaires were sent out to Swedish psychologist by mail randomly among 90% of Swedish Union of Psychologists, which constituted of 5500 members. Among the 1000 questionnaires sent, the response rate was 85% (850) (Hjalmarson & Saloojee 2005).

Regarding tobacco usage, findings of Hjalmarson & Saloojee in 2005 are described as follows: (Hjalmarson & Saloojee 2005)

- Talking about behavioral supports or mentally supports, we can think of psychologists at the top of mind, but in Sweden, the research of Hjalmarson & Saloojee in 2005 has shown that even most of the psychologists in Sweden has stopped smoking but their helps for clients on quitting it is only 1% (1% of psychologist helped their clients to stop using tobacco)
- 75% answered it was not their responsibility to help their clients to quit tobacco
- 74% also answered that they lack the necessary skill
- 8% of psychologist smoked cigarette themselves daily

Regarding snus usage: (Hjalmarson & Saloojee 2005)

- 86% of clients who used tobacco started with cigarette and later changed to snus
- 6% started using snus and changed to cigarette
- 9% of client with tobacco usage used both cigarette and snus

Snus helped reduce smoking prevalence among men and is a potentially useful harm reduction tool

### **3.3.7 Discover the snus usage pattern - Religiousness**

**approach:** (Gillum et al. 2009)

To examine or relate the usage of smokeless tobacco usage pattern to religiousness, this study assess the usage pattern of people with religious faith in smokeless tobacco.

Methodology:

Use of secondary data from the 3<sup>rd</sup> National Health and Nutrition Examination Survey (NHANESS III) which took place from 1988 to 1994 in the United States.

Information collected was demographic and behavioral in nature. Demographic info included: race, ethnicity, years of education completed, medical history including self-assessed health status. Behavior information where church attendance and smoking history. (Gillum et al. 2009)

Findings: (Gillum et al. 2009)

The more a participant attend religious service, the lower the use of smokeless tobacco in men between the ages of 17 to 29. This is not the same for those above 30 years.

### **3.3.8 Some snus usage pattern and influencing factors which has been discovered before 2000s:**

#### **3.3.8.1 Discover the snus usage pattern and user's age onset (Riley et al., 1996)**

Riley, Kaugars, Grisius, Page, Burns, Svirsky conducted their research to evaluate physical harm or change of nature to the mouth of smokeless tobacco users

Methodology:

345 adults who are users of smokeless tobacco were selected from 1990 to 1992 within Virginia in the United States. The people selected were white males and were paid 20 USD each for their participation. Most of them had completed high school and almost

63.8% have had least of 2 years at college. They were selected through public advertisement. (Riley et al., 1996)

Findings: (Riley et al., 1996)

- Most of them begun smokeless tobacco user in their adult age: majority started by chewing tobacco
- 12%- 14% begun smokeless tobacco use before they were 12 years
- Those who begun using before they were adults still use smokeless tobacco
- Most smokeless tobacco users start with cigarette smoking
- Those who started with chewing tobacco usually end up with snuff tobacco.

### **3.3.8.2 Discover the snus usage pattern – correlates of smoking and smokeless tobacco use among continuation high school students (Johnston, Elder, Werden, & Senn, 1994)**

Students attending continuation high school due to poor performance teenage delinquency and absenteeism were studied in San Diego, California on smokeless tobacco usage patterns. The students came from a continuation high schools.

Methodology:

A 50 item self-answering questionnaires were given to the participants by their class teachers during the class hours. The questionnaire had questions concerning smokeless tobacco usage pattern and also social demographic variables; the sample size is 374 students. (Johnston et al., 1994)

Findings:

Cigarettes smoking: (Johnston et al., 1994)

- 81.7% : Have ever tried smoking
- 50.4%: Smoked once a month or more
- 43.9%: Smoked everyday/almost everyday

- 54%: Adults in their homes smoke
- 86.8%: They have friends who smoke

Smokeless tobacco use:

- 22.3% : Have tried smokeless tobacco
- 5%-7%: Once or even more
- 2%-9%: Once a week
- 1%-8%: usage is everyday

### **3.3.8.3 Discover the snus usage pattern - Psychological profile:(Foreyt et al., 1993)**

This was a study conducted to build a psychological profile of smokeless tobacco users using demographic characteristics and their habits

Methodology:

Primary data: self-report questionnaires were answered by bachelors degree students from universities in Texas. The students totaled 1991 males and females, there was 94% were returned. (Foreyt et al., 1993)

Findings: (Foreyt et al., 1993)

Smokeless tobacco use:

- 63% had never before used tobacco
- Less than 1% of female had ever use nay form of tobacco
- 17% had ever used or are still using
- 10% of females were smokers

Ethnic:

- 21% were whites
- 10.4% blacks
- 5.4% Hispanic

- 5.4 % others

Reasons of beginning smoking:

It included:

- 59.7%: See if I would enjoy it
- 46.6% most of my friends used it

There were no distinct differences between personalities

## **4 Evaluation and critique**

The above eleven articles have shown various patterns of smokeless tobacco usage. Data used to develop these patterns are either from the Swedish or the United States market. Each of these articles has different methodological approach and therefore, findings of the usage patterns presented in them are for different users.

Smokeless tobacco – Snus is also sold out as FMCG products. But, the same as other types of tobacco, it is prohibited in public places (Nebot et al. 2005). Therefore the approach to research on smokeless tobacco is limited in diversification. There is very little research on purchase behavior or customer satisfaction among the smokeless tobacco users.

### **4.1 Previous researches methodology**

The researches examined the usage pattern by using the following instruments: questionnaires; telephone surveys; data sets from national surveys or statistical data; and secret document of some tobacco companies. The data they collected focused on basic information or demographical information of users. This is a classical methodology to examine a market. They haven't focused on issues such as contact points with the customer, their media habits, brand usage and purchases, and perceived value when using the products. Even in the demographic information, the researches so far mentioned about age, gender, education level, etc. but they haven't focus on other important information for managerial activities such as: user's job or profession, personal income or pricing of brands.

The appendix 1 in this thesis shows how the number of smokeless tobacco providers, their brands, sub brand as well as their flavorings in Sweden and the appendix 2 show the same information for the US market. Based on this information, it shows clearly that there must be a competition between the tobacco providers and there are diversified in the

needs of smokeless tobacco markets. Therefore, researches on customer usage pattern must provide more information much more than basic demographic

### **4.3 Arguments and findings**

Demographic is the factor that have been used the most to determine the usage pattern. Religiousness or psychological factors are not concerned much. Therefore the findings of these researches are not clearly to support managerial decision-making processes or not to support tobacco companies in term of product development and innovation.

Compared with other FMCG products, the number of research for smokeless tobacco are much fewer. Approach is simple and they are applied by the old theories and models to examine the market.

In term of social development, researches findings so far for smokeless tobacco mainly to describe the market, not to take a deep look in customer's needs and wants in order to innovate the products and helping the customers with better satisfaction or protect their health.

## **5 Conclusions**

### **5.1 Conclusions**

Research findings on smokeless tobacco, which are examined above, show the basic usage pattern for the Swedish and the US markets. Sweden is relatively the largest market for Snus. The user population compared with the national population is high. In the US, smokeless tobacco market is under development and therefore consumption is on the rise. Usage pattern of smokeless tobacco in the US and Sweden are quite similar, just as any other highly addictive product.

Research on smokeless tobacco is still basic; it lacks meaning in terms of support for managerial decision-making and product development.

### **5.2 Research limitation**

This thesis has examined researches on smokeless tobacco usage pattern. Based on their research methodologies, it should be the examination of all the researches on smokeless tobacco in Sweden and the United. This thesis explores the usage pattern of smokeless tobacco users based on secondary data. Unfortunately, the numbers of previous researches on this product is not much since snus is still new product in most markets.

### **5.3 Discussion and recommendation for further researches**

Smokeless tobacco usage pattern in Sweden show that it is a very potential product in tobacco industry. It is confirmed again by the usage pattern for users in the United States. Therefore, there could be an opportunity for other markets in the rest of the world, including Vietnam.

Since smokeless tobacco in form of snus is one of the addictive products, the usage patterns of the users, which are found in previous, could be considered when launching it in a brand new market.

Further research for smokeless tobacco should make a deeper look on the customer profile, it should apply new theory and describe usage pattern in the way to support the managerial decision-making and/or product innovation and development.

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**Appendix 1: Snus providers, main brands, sub brands and flavorings in Sweden**

<b>Provider</b>	<b>Main Brands</b>	<b>Sub Brands</b>	<b>Flavouring</b>
<b>Swedish Match</b>	General	General Original Portion	Begamont
		General White Portion	
		General Silver Portion	
		General Mini Portion	
		General Mini White Portion	
		General Eksta Sterk Portion	
		General Onyx Portion	
		General Lös	
		GeneralGreen Harvest	
		General Strong White	
		General Smooth	
		General Long	
		General Eksta Sterk Lös	
		General Long Sterk	
	Goteborgs Rape	Göteborgs Rapé White Portion	Natural
		Göteborgs Rapé No. 2 white Portion	
		Göteborgs Rapé loose snus	
		Göteborgs Rapé White Portion Mini	
	Ettan	Ettan Original Portion	Nut, Wood and Tar
		Ettan Vit Portion	
		Ettan Lössnus	
	Grovs	Grovs Original Portion	
		Grovs Svart Portion	
		Grovs White Portion	
		Grovs Lös	

Röda Lacket	Röda Lacket White Portion	Dried Fruit
	Röda Lacket Lössnus	
Kardos	Kardos Superior Blend	
Nick and Johnny	Nick and Johnny Ice	
	Nick and Johnny Heat	
	Nick and Johnny Edge	
Kalibar	Kalibar White	
	Kalibar Original	
Tre Ankare	Tre Ankare Portion	Wood, Earth, and Smoke
	Tre Ankare Portion Mini	
Probe	Probe Original Portion	Whisky
	Probe Lössnus	
Göteborgs Prima Fint	Lössnus	
Catch	Catch Original	Fresh Licorice
	Catch White Eucalyptus	
	Catch White Licorice	
	Catch Dry Mini Licorice	
	Catch Dry Mini Eucalyptus	
	Catch Pure Mint	
	Catch Collection Trill	
	Catch Collection Still	
	Catch Collection Chill	
Kronan	Kronan Lös	
	Kronan Vit Portion	
	Kronan Original	
Lab Series	Lab Series 01 Original Portion	Herb, Oak, and Cidar
	Lab Series 02 Strong Portion	
	Lab Series 05 Strong White Portion	

		Lab Series 06 Extra Strong Portion	
<b>BAT Sweden</b>	Granit	Granit Vit Portion	
		Granit Portion	
		Granit Maxi Portion	
		Granit Lös	
		Granit Special	
	Knekt	Knekt Vit Portion	
		Knekt Portion	
	Mocca	Mocca Lakrits	
		Mocca Mint	
		Mocca Granatäpple	
Lucky Star	Lucky Strike Original		
	Lucky Strike White		
<b>Imperial Tobacco Group</b>	Skruf	Skruf Lös	
		Skruf Portion	
		Skruf White Portion	
	Knox		
<b>Japan Tobacco International</b>	Camel	Camel Original Portion	
		Camel White Portion	

*Sources: websites of Swedish Match, British American Tobacco Sweden, Imperial Tobacco Group and Japan International Tobacco*

## Appendix 2:

### Snus providers, main brands, sub brands and flavorings in the United States:

Provider	Main Brand	Sub brands
Philip Morris	Marlboro Snus	Marlboro Snus Original
		Marlboro Snus Frost
		Marlboro Snus Spice
US Smokeless Tobacco Company	Copenhagen	Copenhagen Original Fine Cut
		Copenhagen Long Cut
		Copenhagen Pouch
	Skoal	Skoal Pouches
		Skoal Bandit
	Red Seal	Red Seal
	Husky	Husky Long Cut
		Husky Fine Cut
RJ Reynolds	Camel Snus	Camel Snus Frost
		Camel Snus Frost Large
		Camel Snus Mellow
		Camel Snus Mint
		Camel Snus Robust
		Camel Snus Winterchill

#### Sources:

USSTC: [http://www.ussmokeless.com/en/cms/Products/Products\\_Brands/default.aspx](http://www.ussmokeless.com/en/cms/Products/Products_Brands/default.aspx)

Philip Morris <http://www.philipmorris.com>

**University of Borås** is a modern university in the city center. We give courses in business administration and informatics, library and information science, fashion and textiles, behavioral sciences and teacher education, engineering and health sciences.

In the **School of Business and Informatics (IDA)**, we have focused on the students' future needs. Therefore we have created programs in which employability is a key word. Subject integration and contextualization are other important concepts. The department has a closeness, both between students and teachers as well as between industry and education.

Our **courses in business administration** give students the opportunity to learn more about different businesses and governments and how governance and organization of these activities take place. They may also learn about society development and organizations' adaptation to the outside world. They have the opportunity to improve their ability to analyze, develop and control activities, whether they want to engage in auditing, management or marketing.

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The **research** in the school is well recognized and oriented towards professionalism as well as design and development. The overall research profile is Business-IT-Services which combine knowledge and skills in informatics as well as in business administration. The research is profession-oriented, which is reflected in the research, in many cases conducted on action research-based grounds, with businesses and government organizations at local, national and international arenas. The research design and professional orientation is manifested also in InnovationLab, which is the department's and university's unit for research-supporting system development.



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