

User's Satisfaction on Electronic Cigarettes in Nueva Ecija, Philippines

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Abstract- This study determines the users' satisfaction on electronic cigarettes in San Isidro Nueva Ecija. Based on the findings of the study the researcher were able arrive to the following conclusions. There are some respondents that when they started to use e-cigarette they decided to stop smoking traditional cigarette in a reason of it is safer and lessen the nicotine that they get. The researchers' encountered some respondents that do not in favor of using e-cigarette because there's a tendency that it may explode. E-cigarette is obviously a little bit expensive but many users' of it said that it is reasonable because of its attractive features that trigger the satisfaction and relaxation that they get from e-cigarette. According to the retailers, there's a 'no minor' policy in their store but there's an instance that the parents are the one who come to the store just to bought an e-cigarette for their teenagers, and the reasons behind are they want safety for their children and to prevent using of traditional cigarette causing impairment in health. On the other hand, the market research shows that majority of the consumers got more satisfaction with e-cigarette. Furthermore, the study shows that users are more satisfied in e-cigarettes than traditional cigarettes.

INTRODUCTION

Based on the recent study conducted by Philippine Statistics Authority (PSA) on 2009, there are 17.3 million Filipino adults age 15 years and older are current tobacco smokers, according to the results of the 2009 Global Adult Tobacco Survey (GATS). Almost half (48 percent or 14.6 million) of adult males and 9 percent (2.8 million of adult females are current smokers.

Cigarette smoking is the leading cause of preventable death, leading to an annual five million deaths (one in ten adults) around the globe. It is estimated that if current smoking patterns carry on, the annual death toll could rise to more than eight million by 2030. Cigarette smoking is a risk factor for many cancers and respiratory diseases (health.wikipilipinas.org, 2010)

As a result of the these surveys, companies innovated a more healthy way to satisfy the cigarettes users' habit of smoking. Recently, companies introduced the concept of electric cigarettes to the market. Electronic cigarettes, also known as e-cigarettes or vapor cigarettes, are battery-operated devices that resemble traditional cigarettes. However, instead of burning tobacco, they generally contain cartridges filled with nicotine and other chemicals. When the e-cigarette is used, the liquid chemicals in the cartridge are turned into a vapor or steam that is inhaled by the smoker.

E-cigarettes may contain harmful substances. However, the types or concentrations of chemicals, including nicotine, vary based on the brand. Because e-cigarettes have only been readily available in the United States since 2006, there is limited research on their health risks.

The FDA started regulating e-cigarettes on August 8, 2016 and has not approved e-cigarettes as a way to quit smoking. People with cancer who want to quit smoking should use evidence-based methods for quitting smoking. (cancer.net2016)

The continuous evolving industry of electric cigarettes gives the researcher an idea to identify the users' satisfaction of the product. Researchers believe that this study might be a benchmark for companies of the electric cigarettes to identify the areas to improve on their products. Furthermore, the study will contribute to the present knowledge on the industry since there are few studies conducted in the country related to the said industry.

Statement of the Problem

This study determines the user's satisfaction on Electric cigarettes in San Isidro Nueva Ecija. Specially, the study will try to determine the following:

1. Basic characteristics of the respondents
 - 1.1 Age
 - 1.2 Gender
 - 1.3 Educational Qualification
2. Current smoking status and electronic cigarette use patterns
 - 2.1 Years in smoking
 - 2.2 Current smoking status
 - 2.2.1 Traditional Cigarette
 - 2.2.2 Electronic Cigarette
 - 2.3 Type of Electronic cigarette device most often used
 - 2.4 Type of Electronic cigarette liquid used
3. The users' satisfaction on electric cigarette
4. The perceived difference between traditional and electric cigarettes to the users.
5. Proposed product development plan for electric cigarette.

Conceptual Framework

The main concept of the study is to identify the users' satisfaction on electric cigarettes and propose a product development plan for the improvement of the products. The researchers' idea is the profile of the users in terms of age, gender, educational background, and years in smoking affects their satisfaction of the product and their perceived difference between the traditional and

electric cigarettes. Satisfaction of the users will be described in terms of its safety, affordability, appearance, durability, and portability.

Lastly, the main objective of the study is to propose a product development plan for the further improvement of the products. The plans will be based on the identified satisfaction on safety, affordability, appearance, durability, and portability. Also, the perceived difference between e-cigarettes and traditional cigarettes may also be a basis for further improvement.

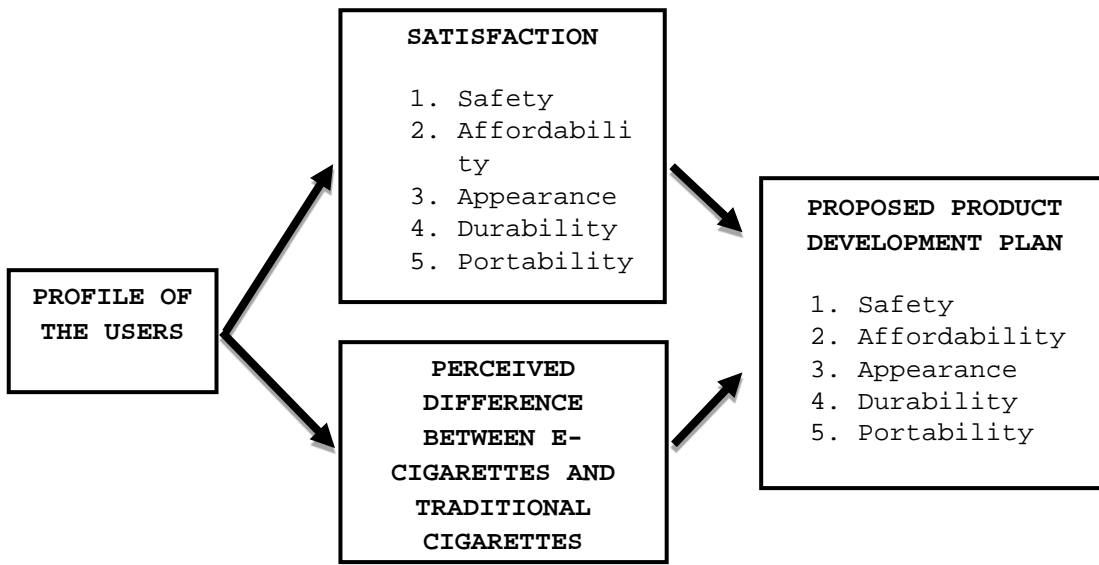


Figure 1. Conceptual Paradigm

METHODOLOGY

Research Design

The study will utilize the descriptive method of research. This is the most appropriate method to use since the study will determine the users’ satisfaction on electric cigarettes. Descriptive research methods are pretty much as they sound — they *describe* situations. They do not make accurate predictions, and they do not determine cause and effect.

Respondents of the Study

The respondents of the study are the users of both electric cigarettes and traditional cigarettes in San Isidro, Nueva Ecija. Based on the interviewed electric cigarettes sellers in San Isidro, Nueva Ecija the estimated users of e-cigarettes in the location of the study is 1,500. Solving’s formula were used to identify the sample size of the study. The researchers will use purposive sampling to identify the actual respondents of the study. This is the most appropriate technique to use since the researchers are capable to choose who will be the members of the sample population which are most suited to be the respondents of the study.

Purposive sampling (also known as judgment, selective or subjective sampling) is a sampling technique in which researcher relies on his or her own judgment when choosing members of population to participate in the study.

Purposive sampling is a non-probability sampling method and it occurs when “elements selected for the sample are chosen by the judgment of the researcher. Researchers often believe that they can obtain a representative sample by using a sound judgment, which will result in saving time and money. (Dudovskiy, 2011)

Construction and Validation of Instrument

This section presents the how the instrument to be used in the were constructed and validated. Prior to the construction of the the instrument, researchers familiarize themselves on the product by studying related studies, articles, and books related to the present study. In addition, the researchers interviewed some of e-cigarette users to have additional knowledge on the study. Books on the field of marketing management of Philip Kotler serves as a guide for the questions related to customers’ satisfaction.

The researcher then prepared a draft of the instrument and it was consulted to the research instructor, research adviser, and other experts on the field for additional suggestions for recommendations.

Prior to the actual data gathering, the researchers conducted a pre-test to some e-cigarette users which are not included in the scope of the study. This is necessary to test if the actual respondents will able to answer the questionnaire.

Techniques in Data Gathering

The researchers consulted to the seller of electronic cigarette in San Isidro, Nueva Ecija to get secondary data relevant to the present study, particularly the number of electronic cigarette users in San Isidro, Nueva Ecija. The researchers also secured secondary data from other reading materials published online.

The researchers through the systematic construction and validation of the instrument of the study will personally conduct the administration of the questionnaire.

After conducting the survey and interview, the researcher will organize and analyze the data. From the result to be obtain from the survey, the researcher will come up with a proposed action plan from the betterment of electronic cigarette users and producers.

RESULTS AND DISCUSSION

1. Basic Characteristics of the Respondents

The profiles of the respondents were described in terms of age, gender, highest educational attainment, and employment status. The respondents profile are presented as follows:

Age. Based on the data gathered, respondents from ages 16-20 are the majority of users of traditional and electronic cigarettes: 154 out of 316, or forty-eight (48) percent, 68 respondents or twenty-two (22) percent are ages 21-25, 56 respondents or eighteen (18) percent are ages 26 and above, and 39 respondents or twelve (12) percent are ages 10-15.

Table 1
Respondent's Profile

PROFILE	FREQUENCY	PERCENTAGE
AGE		
10 – 15	39	12
16 – 20	154	48
21 – 25	68	22
26 and above	56	18
Total	316	100
GENDER		
Male	291	92
Female	25	8
Total	316	100
HIGHEST EDUCATIONAL ATTAINMENT		
Elementary Graduate	25	8
High School Graduate	157	50
Vocational Course	30	9
College Graduate	73	23
College Undergraduate	31	10
Total	316	100
EMPLOYMENT STATUS		
Employed	115	36
Contractual	62	20
Permanent	42	13
Job-order	11	3
Self-employed	15	5

Unemployed	41	13
Studying	145	46
Total	316	100

This data provides that ages 16-20 has more capacity to buy and use the electric cigarette.

Gender. Out of three hundred sixteen respondents, 291 or ninety-two (92) percent are male, while only 25 respondents or eight (8) percent are female. This data we gathered shows that males are the common users of electronic cigarettes.

Highest educational attainment. Based on the data gathered, the biggest portion of the respondents is 157 or fifty (50) percent were from high school graduates; 73 respondents or twenty-three (23) percent are college graduates; undergraduates are 31 respondents or nine (10) percent; 30 respondents or (9) percent are studying vocational; and 25 respondents or eight (8) percent are elementary graduates. This implies that most of the electronic cigarette users are high school graduates, and they are knowledgeable enough for the features of the e-cigarettes. This signifies too, that they have enough money to buy an electric cigarette.

Employment status. As to their employment status, 145 respondents or forty-six (46) percent are still studying; 115 respondents or thirty-six (36) percent are employed, which is divided by contractual, permanent and job-order, with 62 respondents or twenty (20) percent, 42 respondents or thirteen (13) percent, and 11 respondents or three (4) percent, respectively. 41 respondents or thirteen (13) percent are unemployed, and 15 respondents or five (5) percent are self-employed. This data proved that majority of users are still studying, and they may be attracted with the physical features of electric cigarettes.

2. Current smoking status and electronic cigarette use patterns

This part answers the second question of the study. It presents the practices of consumers and how long they are using the electronic and traditional cigarettes.

Years in smoking. Table three shows how long they are using electric and traditional cigarettes. Majority of the respondents are smoking for less than a year. 152 respondents or forty-eight (48) percent said that they were smoking for less than a year, specifically, the electric cigarette. 106 of the respondents or thirty-four (34) percent said they were smoking for one to two years; 35 of the respondents or eleven (11) percent are smoking for three to four years; 17 of the respondents or five (5) percent are smoking for five to six years, and 6 respondents or two (2) percent are saying that they were already smoking for more than six years. This implies that majority of smokers are smoking for less than a year, and majority of it too (based on the respondents of the profile), are still studying.

Current smoking status. Based on the data gathered, traditional cigarette has daily smokers of 152 respondents or forty-eight (48) percent, 92 of the respondents or twenty-nine (29) percent are just occasional smokers and the rest, 89 respondents or twenty-eight (28) percent has already quit smoking of the traditional cigarette. Electronic cigarettes has daily smokers of 154 respondents or forty-nine (49) percent, 150 of the respondents or forty-seven (47) percent are occasional smokers, and the rest, 12 respondents or four (4) percent said they already quit smoking of e-cigarettes due to some reasons. This shows that there are more quitters of traditional cigarettes than electronic cigarettes, and based on the table, there are more than daily smokers of e-cigarettes than traditional cigarettes. This implies that they prefer to use e-cigarettes than traditional cigarettes.

Table 2
CURRENT SMOKING STATUS AND ELECTRONIC CIGARETTE USE PATTERNS

	FREQUENCY	PERCENTAGE
YEARS IN SMOKING		
Less than a year	152	48
One to two years	106	34
Three to four years	35	11
Five to six years	17	5
More than six years	6	2
Total	316	100
CURRENT SMOKING STATUS		
Traditional Cigarette		
Daily smokers	135	43
Occasional smokers	92	29
Not anymore	89	28
Total	316	100
Electronic Cigarette		
Daily smokers	154	49
Occasional smokers	150	47
Not anymore	12	4
Total	316	100

TYPE OF E-CIGARETTE DEVICE OFTEN USED:		
Cigarette – like	45	14
e-Go batteries	53	17
Mods	218	69
Total	316	100
EC LIQUID USE		
Prefilled cartomizers	16	5
Ready-to-use liquids	294	93
Do-it-yourself liquids	6	2
Total	316	100

On the table above is the type of e-cigarette device and liquid often use. On the table, it shows that majority of the respondents choose to use Mods and ready-to-use liquids. On the table, it says that 218 respondents choose Mods as their e-cigarette device, while in e-cigarette liquids, 294 respondents or ninety-three (93) percent choose ready-to-use liquids. 53 of the respondents or seventeen (17) percent choose e-Go batteries as their e-cigarette device, and 45 respondents or fourteen (14) percent chose cigarette-like, and in e-cigarette liquids, the remaining 22 respondents or seven (7) percent chose to use prefilled cartomizers and do-it-yourself liquids, 16 and 6 respondents respectively. The consumers prefer to use Mods for their e-cigarette device because it is said to be known as the vape, itself. Based on the data gathered, consumers prefer to use ready-to-use liquids because it is very convenient for them, unlike prefilled cartomizers and do-it-yourself liquids.

2. Consumer satisfaction on electronic cigarettes

Table 3
SATISFACTION ON ELECTRONIC CIGARETTES

SATISFACTION ON ELECTRONIC CIGARETTES	Weighted Mean	Verbal Interpretation
Electronic cigarette smells good.	4.35	Agree
Electronic cigarette is more fun to use because of varieties of flavors	4.28	Agree
The electronic cigarette is more fashionable and attractive	4.21	Agree

Electronic cigarette is easy to use.	4.18	Agree
Electric cigarettes are durable.	4.12	Agree
Electronic cigarette is easy to carry.	4.1	Agree
The price is reasonable for the features of the product	4.06	Agree
Electronic cigarette can lessen the exposure to nicotine thus it is not addictive	4.05	Agree
Electronic cigarette is more delicious.	4.03	Agree
Smoke from E-Cigarette is not harmful for people surrounds me	3.9	Agree
The electronic cigarette is safer for me	3.88	Agree
Electric cigarette saves more money.	3.86	Agree
Average Weighted Mean	4.09	Agree

Table 3 shows the consumer satisfaction of San Isidro, Nueva Ecija. Consumers agreed that electronic cigarette smells good than traditional cigarettes. They also agree that electronic cigarette is more fun to use because of varieties flavors, more fashionable and attractive, that it is easy to use and that the price of e-cigarette is reasonable for the features of product than the usual cigarettes that the people commonly knew.

Table 4

Perceived Differences Between E-Cigarette and Traditional Cigarettes

PERCEIVED DIFFERENCES BETWEEN E-CIGARETTE AND TRADITIONAL CIGARETTES	Weighted Mean	Verbal Interpretation
I believe that electronic cigarette smells good than traditional cigarettes	4.27	Agree
I believe that electric cigarette is more fashionable and attractive	4.18	Agree
I believe that electronic cigarette is fun to use because of varieties of flavors compared to traditional cigarettes	4.11	Agree

I believe that electronic cigarette can lessen the exposure to nicotine thus it is not addictive compared to traditional cigarette	4.10	Agree
I believe that electronic cigarette is more delicious than traditional cigarette	4.07	Agree
I believe that electric cigarette is more easy to use and more convenient to use than traditional cigarettes	4.05	Agree
I believe that electric cigarettes are durable compared to traditional cigarettes	4.03	Agree
I believe that electric cigarette is easy to carry and more portable than traditional cigarettes	4.03	Agree
I believe that the price of electric cigarette is more reasonable for the features of product than traditional cigarette	4.01	Agree
I believe that electric cigarette saves more money than traditional cigarettes	3.85	Agree
I believe that smoke from e-cigarette is not harmful for people surrounds me compared to smoke coming from traditional cigarette	3.85	Agree
I believe that the electronic cigarette is safer for me than using traditional cigarettes	3.81	Agree
Average Weighted Mean	4.03	Agree

The table 4 shows the perceive differences between traditional and electric cigarettes. Based on the data gathered, all of the statements that the researchers gave were agreed by the respondents. They agreed that electric cigarettes are durable and easy to carry. They also agreed that it can lessen the exposures of nicotine thus it is not addictive, rather than traditional cigarettes. It is said to be more delicious and not harmful for people around the users. All of the statements that the researchers gave to them were agreed by them.

CONCLUSION

Based on the findings of the study the researcher were able arrive to the following conclusions: There are some respondents that when they started to use e-cigarette they decided to stop smoking traditional cigarette in a reason of it is safer and lessen the nicotine that they get. The researchers' encountered some respondents that do not in favor of using e-cigarette because there's a tendency that it may explode. E-cigarette is obviously a little bit expensive but many users' of it said that it is reasonable because of its attractive features that trigger the satisfaction

and relaxation that they get from e-cigarette. According to the retailers, there's a 'no minor' policy in their store but there's an instances that the parents are the one who come to the store just to bought an e-cigarette for their teenagers, and the reasons behind are they want safety for their children and to prevent using of traditional cigarette causing impairment in health. On the other hand, the market research shows that majority of the consumers got more satisfaction with e-cigarette. Furthermore, the study shows that users are more satisfied in e-cigarettes than traditional cigarettes.

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