



**INFLUENCE OF THE SAMSUNG GALAXY NOTE 7'S  
BATTERY PROBLEM ON CONSUMER PERCEPTION  
AND INTENTION TO PURCHASE SAMSUNG  
SMARTPHONE IN THE FUTURE**

**BY**

**MR. SUPAK APITANAWIT**

**AN INDEPENDENT STUDY SUBMITTED IN PARTIAL  
FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF SCIENCE PROGRAM IN MARKETING  
(INTERNATIONAL PROGRAM)  
FACULTY OF COMMERCE AND ACCOUNTANCY  
THAMMASAT UNIVERSITY  
ACADEMIC YEAR 2016  
COPYRIGHT OF THAMMASAT UNIVERSITY**

**INFLUENCE OF THE SAMSUNG GALAXY NOTE 7'S  
BATTERY PROBLEM ON CONSUMER PERCEPTION  
AND INTENTION TO PURCHASE SAMSUNG  
SMARTPHONE IN THE FUTURE**

**BY**

**MR. SUPAK APITANAWIT**

**AN INDEPENDENT STUDY SUBMITTED IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE  
OF MASTER OF SCIENCE PROGRAM IN MARKETING  
(INTERNATIONAL PROGRAM)  
FACULTY OF COMMERCE AND ACCOUNTANCY  
THAMMASAT UNIVERSITY  
ACADEMIC YEAR 2016  
COPYRIGHT OF THAMMASAT UNIVERSITY**

THAMMASAT UNIVERSITY  
FACULTY OF COMMERCE AND ACCOUNTANCY

INDEPENDENT STUDY

BY

MR. SUPAK APITANAWIT

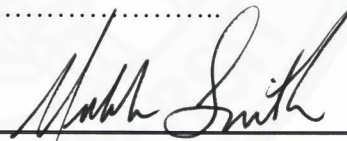
ENTITLED

INFLUENCE OF THE SAMSUNG GALAXY NOTE 7'S BATTERY PROBLEM  
ON CONSUMER PERCEPTION AND INTENTION TO PURCHASE SAMSUNG  
SMARTPHONE IN THE FUTURE

was approved as partial fulfillment of the requirements for  
the degree of Master of Science Program in Marketing (International Program)

on..... 8 MAY 2017

Chairman



(Professor Malcolm C. Smith, Ph.D.)

Member and Advisor



(Professor Kenneth E. Miller, Ph.D.)

Dean



(Associate Professor Pipop Udorn, Ph.D.)

Independent Study Title	INFLUENCE OF THE SAMSUNG GALAXY NOTE 7'S BATTERY PROBLEM ON CONSUMER PERCEPTION AND INTENTION TO PURCHASE SAMSUNG SMARTPHONE IN THE FUTURE
Author	Mr. Supak Apitanawit
Degree	Master of Science Program in Marketing (International Program)
Major Field/Faculty/University	Faculty of Commerce and Accountancy Thammasat University
Independent Study Advisor	Professor Kenneth E. Miller, Ph.D.
Academic Year	2016

## ABSTRACT

Recently, Samsung Electronics encountered a crisis period from the Samsung Galaxy Note 7's battery problem, which was their flagship smartphone. The model had an issue on batteries that bursting into flame. Samsung had started recalling all products and offered a new replacement; however, the same problem was still occurred. As a result, Samsung announced the official announcement stating that they would permanently discontinue the production and sales of its Galaxy Note7 on October, 11. This negative information toward the consumer definitely had affects to Samsung brand image.

This study aimed to explore the effect of this situation, especially on consumer perception toward Korean electronics brand and intention to buy Samsung smartphone in the future. The finding from this study can be used as a case study for any brand suffering from negative information about its brand.

The data were collected through three methods, which were a secondary research, an in-depth interviews and a survey. Due to a time constraint of the research, a convenience sample was used in this study with five in-depth interviews and 332 respondents from an online survey. The target respondents were current Samsung smartphone users in Thailand who had heard about the Samsung Galaxy Note 7's

battery problem. The data from both in-depth interviews and questionnaire survey were analyzed by both qualitative and quantitative methods.

Smartphone usage behaviors were grouped into five factors and were analyzed by cluster analysis, in which it could be classified into four clusters, which were focusing user, light user, entertainment and socialized user, and all activities user. Each cluster did not have much different on attributes that had significant change after noticing the Galaxy Note 7's battery problem. Perception on almost all attributes toward Samsung had significant change, excepting after sales service. However, surprisingly, the level of intention to purchase Samsung smartphone in the future of all clusters was still high at over 79%.

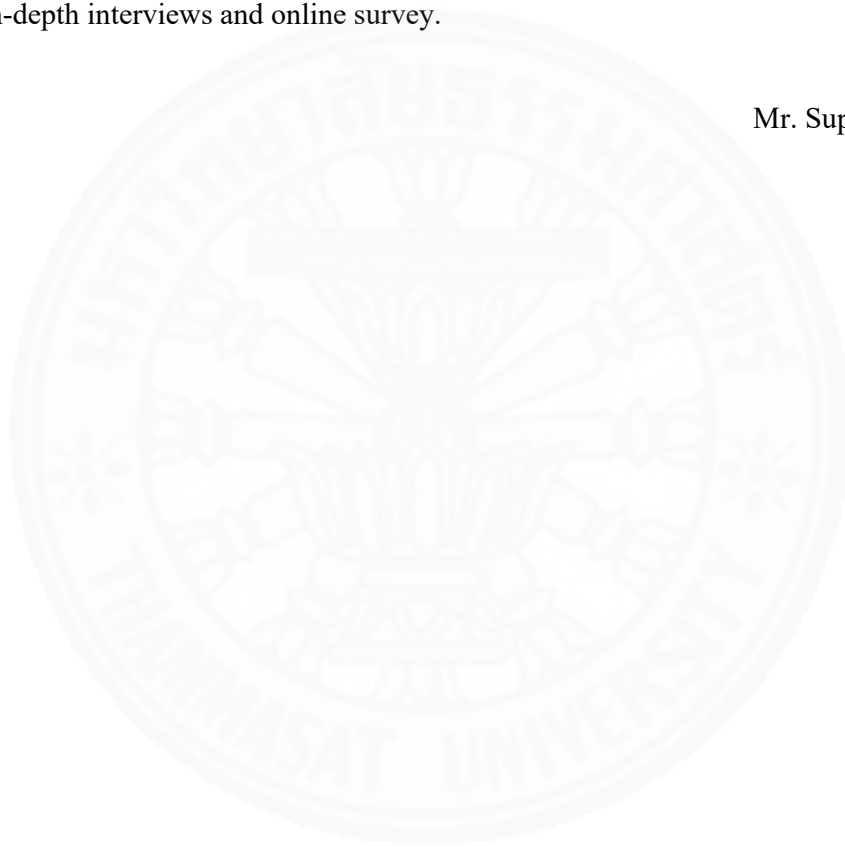
The recommendation from this study is to focus on rebuilding confidence on the cluster of work focusing user and all activities user first as they accounted for 64% of total sample. Moreover, Samsung should keep developing its products and services in order to create loyalty customers that can bring it pass through this problem.

**Keywords:** Smartphone, user, perception, intention to purchase, brand image, loyalty customer

## ACKNOWLEDGEMENTS

I would like to express my gratitude to my advisor, Prof. Dr. Kenneth E. Miller, for providing me great advices in order for me to complete this independent Study. I also would like to thank my friends who supported and taught me how to perform the quantitative data analysis. I also would like to thank my family for their understanding and support for me throughout the research period. Lastly, this independent study would not be completed without support from all respondents, both in-depth interviews and online survey.

Mr. Supak Apitanawit



**TABLE OF CONTENTS**

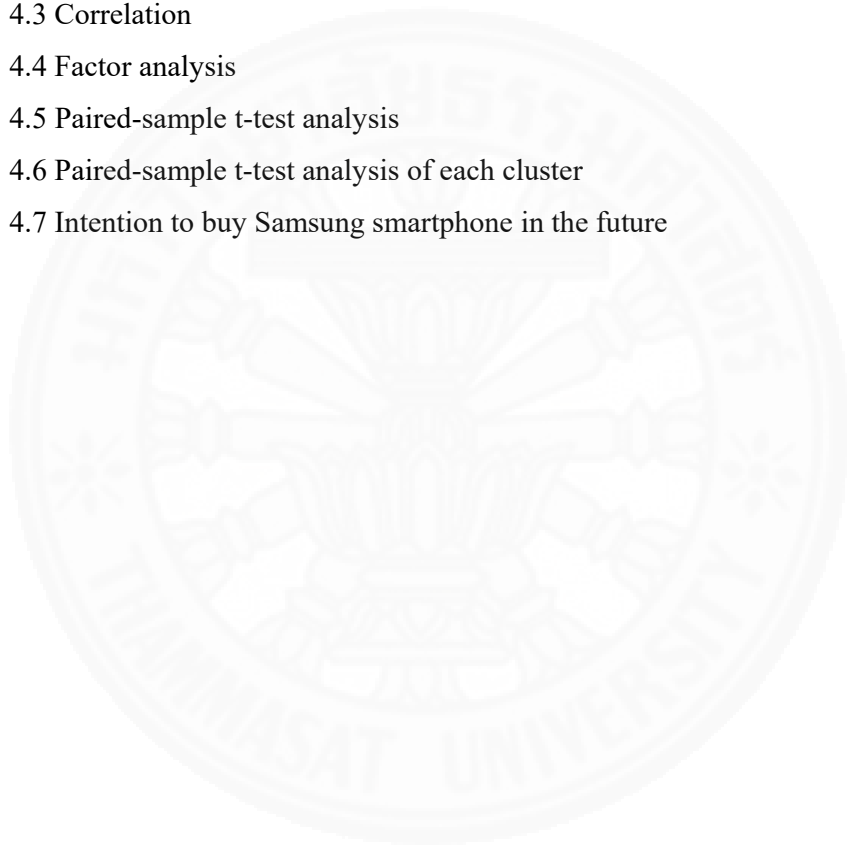
	Page
ABSTRACT	(1)
ACKNOWLEDGEMENTS	(3)
TABLE OF CONTENTS	(4)
LIST OF TABLES	(6)
LIST OF FIGURE	(7)
CHAPTER 1 INTRODUCTION	1
1.1 Samsung Galaxy Note 7's background and research purpose	1
1.2 Research objectives	3
CHAPTER 2 REVIEW OF LITERATURE	4
2.1 Impact of the Samsung Galaxy Note 7 on the United States market	4
2.2 Product recall and brand loyalty	4
2.3 Brand reputation toward effects from negative impact	4
2.4 How good and bad news travel	5
2.5 Why Samsung discontinue the Galaxy Note 7	5
2.6 Samsung action after the Galaxy Note 7 recall	6
CHAPTER 3 RESEARCH METHODOLOGY	7
3.1 Exploratory research	7

	(5)
3.1.1 Secondary data	7
3.1.2 In-depth interview	7
3.2 Descriptive research	8
3.2.1 Sampling procedure	8
3.2.2 Sample selection	9
3.3 Data analysis	9
3.3.1 Qualitative data analysis	9
3.3.2 Quantitative data analysis	10
3.4 Limitations of the study	11
CHAPTER 4 RESULTS AND DISCUSSION	12
4.1 Secondary research – Key findings	12
4.2 In-depth interviews with current Samsung users – Key findings	12
4.3 Survey questionnaire with current Samsung users – Key findings	14
CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS	24
5.1 Conclusion	24
5.2 Recommendations	26
REFERENCES	28
APPENDICES	
APPENDIX A: Infographic on the Note 7’s battery problem	31
APPENDIX B: In-depth interview questions	32
APPENDIX C: Samsung smartphone user questionnaire	34
BIOGRAPHY	42



**LIST OF TABLES**

Tables	Page
3.1 Allocation of sample size for each research methodology	8
3.2 Key principles in analyzing qualitative data	9
3.3 Socio-demographic details of study respondents	11
4.1 Demographic of respondents from in-depth interview	13
4.2 Demographic of respondents from survey	14
4.3 Correlation	16
4.4 Factor analysis	17
4.5 Paired-sample t-test analysis	20
4.6 Paired-sample t-test analysis of each cluster	21
4.7 Intention to buy Samsung smartphone in the future	22



## LIST OF FIGURE

Figure	Page
4.1 Twostep cluster analysis	18



## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Samsung Galaxy Note 7's background and research purpose**

According to information from Thaivisa (2016), the number of new mobile subscriptions was ranked as one of the top 10 countries in the world during the first quarter of 2016. Nearly half of Thai smartphone users access video and social media applications every day. The number of smartphone subscriptions in Thailand is expected to be 50 million by the end of 2016, and it will reach 80 million by 2021 according to Ericsson Mobility Report (2016). Regarding to Euromonitor (2015), Thai Samsung Electronics Co., Ltd. was a leader in the sale of smartphone market in Thailand with a 30% market share. Samsung penetrated into Thailand for long time; as a result, it has been well recognized in consumer electronics products. The consumer base of smartphone product has been built by offering high quality models with modern designs.

In 2016, Samsung launched its new flagship smartphone model, Samsung Galaxy Note7. It was considered one of the best phones of the year with an AMOLED screen, high performance camera, useful S-Pen tool and a battery that lasted for many hours. However, after launching and selling this new model, there was lots of news reporting that a dozen of batteries burst into flames. As a result, the company asked carriers around the world to stop selling Samsung Galaxy Note7. After that, Samsung recalled all products, which had been distributed, and sent the new one from new production line to Samsung Galaxy Note7 customers; nevertheless, the same problem occurred again. According to CNET (2016), Samsung proceeded one of the biggest recalls in consumer electronics history, in which they recalled over 2.5 million Note 7 phones globally. Finally, Samsung announced that the company will permanently discontinue its Samsung Galaxy Note7 production and sales on October, 11. The company informed the customers that they would be able to exchange their Galaxy Note7 for another Samsung smartphone. The Guardian (2016) reported that airlines around the world have banned Samsung Galaxy note7. There was the announcement on board that passenger must turn off this model throughout the flight. Recently,

Samsung said that the crisis from their flagship smartphone model would drop profits by at least £2.2bn in six month or until the end of March. The analysts predicted that this crisis would cost the South Korean electronics company a lot more damage to its brand, estimating ranging from \$10bn to \$20bn. Greg Roh (2016, p.1), an analyst at HMC Investment Securities, said that Samsung's latest estimate did not take big marketing cost into account for winning back customer loyalty and regaining trust from mobile operators. They would have to spend a huge amount of money to recover from this situation. For Sumsung, there is much work to be done.

The study on influence of the Samsung Galaxy Note 7's battery problem on consumer's perception and intention to purchase Samsung smartphone in the future related to two main marketing related topics. The first topic was brand image of Samsung toward existing customers. Negative information definitely affected the brand image and reputation of the company, in which this study would focus on how Samsung customer's perception had changed in Thailand change after this crisis. The second topic was an intention to buy Samsung smartphone after customer's acknowledgement of negative information related to Samsung. This study would focus on the subject area of Technology in Thailand. The study could be classified as a contemporary topic in applied marketing.

## 1.2 Research objectives

The objectives of this research were to explore Samsung user's demographic and general smartphone usage behavior in order to categorize them into cluster to study perception toward Samsung before and after the Samsung Galaxy Note7 incident and intention to buy Samsung mobile phone in the future. To accomplish the goal of the study, the research design was guided by these following objectives.

1. To explore the situation of the Galaxy Note 7 in Thailand
2. To explore Samsung smartphone users demographic and general smartphone usage behavior
  - 2.1 To explore general demographic of Samsung smartphone user
  - 2.2 To explore Samsung smartphone users behavior on smartphone usage
3. To identify Samsung users' perception toward Samsung before and after the Note 7's battery problem incident
  - 3.1 To identify perception on various attributes, such as, performance, price, and brand image before and after noticing about the Samsung Galaxy Note 7's battery problem
4. To explore intention to buy Samsung smartphone in the future after noticing about the Samsung Galaxy Note 7's battery problem

## **CHAPTER 2**

### **REVIEW OF LITERATURE**

#### **2.1 Impact of the Samsung Galaxy Note 7 on the United States market**

Samsung encountered a crisis on its reputation from the latest flagship model, Samsung Galaxy Note7, which was bust, nevertheless; Samsung's reputation has not been hurt from this incident according to the survey in 50 states of US states from Reuters/Ipsos (Todd 2016).

27% of respondents, who knew about the scandal and 25% of respondents who did not know about debacle, would still consider buying the Samsung smartphone. The last interesting result showed that 91% of the existing Samsung users would buy another Samsung smartphone in the future. From these finding, it could be inferred that the main reasons of this result were early recall and limited negative experience to the users.

#### **2.2 Product recall and brand loyalty**

Various cases of product recall have occurred over the last few years; therefore, substantial researches have been carried out on crisis management and the impact on customer behavior. The results from this research showed that the recall has an impact on brand loyalty (Brandão, Yamada, Ponchio, Cordeiro and Strehlau 2016). In addition, low purchase involvement products would have a higher level of negative effect on brand loyalty resulting from recalls. The consistency of product quality was the key element of brand loyalty building (Ferenčić and Wölfling 2013). The results from brand loyalty are the repeated purchase and continuous brand usage. As a result, brand wants to keep customer's trust in its product.

#### **2.3 Brand reputation toward effects from negative impact**

Good brand reputation can be effected from negative impact on two sides (Rhee and Haunschild 2006). The first aspect, high brand reputation means high customers' expectations of product quality. As a result, defective products could lead to severe negative impact on brand reputation. On the other hand, good reputation

could provide an advantage to a product in case of disastrous situation. The main reason is negative effect could inertly impact to the brand with good reputation. Using data on product recall in the U.S. automobile industry from 1975 to 1999, the results showed that brand reputation could be a company liability with high penalties resulting from product recalls. In addition, this research provided information on reputational effects, in which it could be moderated by two main factors: substitutability and specialism. Few substitute brands with the same level of reputation or brands with focused product for specialties reduce the negative reaction from product recalls.

#### **2.4 How good and bad news travel**

Over a quarter of US consumers said that they were more likely to tell their related parties, such as, family and friends about bad experience on products or services rather than a good experience (marketingprofs.com 2011). This consumer's behavior led to a negative word-of-mouth (WOM). In addition, the result showed that loyal customers would be more likely than general customers to tell others about bad experience with the brand. The tendency of sharing negative WOM was present across all demographic groups in a quite similar proportion. 30% of affluent consumers were likely to share negative news about a brand, followed by 25% of both young adults and women. According to Jonah Berger, a social psychologist at the University of Pennsylvania, good news traveled faster than bad news on Social media (Adweek 2013). The stories linking to emotion – especially positive – in people were much more likely to be shared, as well as, exciting and funny content

#### **2.5 Why Samsung discontinue the Galaxy Note 7**

Samsung launched the Galaxy Note 7 in August in order to compete with the upcoming Apple iPhone7 (Reisinger 2016). The smartphone was an improvement over the Galaxy Note 5, featuring better performance and larger battery, however, a battery was claimed to be problem as there were report of overheating and in some case explosion. Samsung's engineers initially concluded that the defective products were caused by faulty batteries from one of its suppliers (Chen and Sang-hun 2016). Samsung had started a recall in exchange for the Note 7 from new production line,

nevertheless; there was a case reporting a replacement device being burned again on the Southwest Airlines' plane. Samsung spokesperson told Fortune that, "We are working with the authorities and Southwest now to recover the device and confirm the cause. Once, we have examined the device we will have more information to share". There was a panic inside Samsung as Reuter cited two Samsung insiders said that the Note 7 crisis has impacted its trust with consumers and the problem must be fixed quickly otherwise everyone loses. The company has recalled 2.5 million smartphones, issued apologies, promised in-depth investigation, and delivered replacements, which were supposed to be safe, yet there was no sign of any silver lining after new explosive reports. Although, it was not the best choice for Samsung to discontinue the Note 7, the company was left with few others. If there would be the second recall, its brand image could be irreversible.

## **2.6 Samsung action after the Galaxy Note 7 recall**

According to the Verge (2016), after the recall of Samsung Galaxy Note 7, Samsung bought a full-page of three leading US daily newspapers, which were The New York Times, The Wall Street Journal, and The Washington Post. The main key message of this apology ad was to apologize on Samsung Galaxy Note 7's battery problem, and be responsible to investigate and address the cause of this incident with the industry partners and government agencies. After the investigation, the official conclusion of this incident would be published to the public. Referring to Business Insider (2017), the company reported causes of the Samsung Galaxy Note 7's explode on January 2017. There were two main reasons, which were bad battery design and a quick release on the new version of Samsung Galaxy Note 7. The company created an infographic to inform the public on what happened with the Note 7 (Appendix A). In addition, Samsung has also implemented a few actions to ensure that the Galaxy Note 7 incident will not happen again in the future. Samsung's first action was the newly developed eight-point battery check. The company also formed new advisers, especially for battery issue from various world leading institutes, such as, the University of Cambridge, the University of California at Berkeley, and Stanford University.



## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Exploratory research**

The purpose of this exploratory research was to analyze current situation of the Samsung Galaxy Note 7 and perception of Samsung smartphone users in Thailand toward Samsung smartphone. Various aspects were discovered including consumer behaviors in smartphone usage, perception and level of involvement toward Samsung brand. In addition, interesting consumer insights were gained and hypothesis of consumer's perception and intention to purchase Samsung smartphone were generated basing from these data. Exploratory research was consisted of two research methods as following:

##### **3.1.1 Secondary data**

Secondary data was explored to understand current situation of the Galaxy Note 7 in Thailand and around the globe. The data were obtained from credible sources, such as, Euromonitor, news websites, etc. The purpose of secondary data was to understand situation of the Samsung Galaxy Note 7 in Thailand and in global stage.

##### **3.1.2 In-depth interview**

In-depth interviews were conducted to discover insight of Samsung smartphone users and consumers' perception toward Samsung brand both before and after the Note 7's battery problem incident. In addition, the interviewees were asked about their intention to buy Samsung in the future. The in-depth interviews were conducted with five respondents, which were Samsung smartphone users. The questions are attached in Appendix B. This method was performed according to following objectives.

- To explore Samsung smartphone users behavior on smartphone usage
- To identify consumer's perception toward Samsung on various attributes, such as, performance, price and brand image before and after noticing about the Galaxy Note 7's battery problem

- To explore intention to buy Samsung smartphone after Samsung Galaxy Note 7's battery problem

### 3.2 Descriptive research

Intention of the descriptive research was to validate the hypothesis generated from exploratory research regarding Samsung smartphone user's perception toward Samsung and their intention to buy Samsung smartphone after noticing about the Note 7's battery problem. The quantitative research was conducted by the online questionnaire with 332 respondents. The length of questionnaires did not exceed ten minutes. The data were analyzed and interpreted in order to come up with finding of this study. The objectives of this descriptive research were described as following:

- To explore general demographic of Samsung smartphone users
- To explore Samsung smartphone users' behavior on smartphone usage
- To identify perception toward Samsung on various attributes, such as, performance, price and brand image before and after noticing about the Galaxy Note 7's battery problem
- To explore intention to buy Samsung smartphone after Samsung Galaxy Note 7's battery problem

#### 3.2.1 Sampling procedure

This research was conducted with both qualitative and quantitative research methods. All respondents needed to be a Samsung smartphone user, who currently used Samsung smartphone for at least one month at a time of the study and had heard about the Samsung Galaxy Note 7's battery problem. Research methodologies and sample size in each method is illustrated below:

Table 3.1 Allocation of sample size for each research methodology

Type of research	Method	Sample size
1. Qualitative	In-depth interview	5 respondents
2. Quantitative	Survey questionnaire	332 respondents

### 3.2.2 Sample selection

- Target population: A person who currently used Samsung smartphone(s) at least one month at the time of study and had heard about the Samsung Galaxy Note 7's battery problem
- Gender: Male and Female

### 3.3 Data analysis

Data were obtained from exploratory research with five in-depth interviews. In addition, the results of the descriptive research were analyzed with 332 completed questionnaires. The survey was screened and edited to gain more complete data. After coding data into the Statistic Package for the Social Sciences (SPSS), the analysis was done focusing on frequencies, factor analysis, cluster analysis and other statistical analysis as appropriate.

#### 3.3.1 Qualitative data analysis

Five key principles in analyzing qualitative data were used in this step (Miller, 2016).

Table 3.2 Key principles in analyzing qualitative data

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Be subjective	Start inferring in fieldwork. Analysis ends when the report is done	Describe the general term of Samsung existing customers	Look for the patterns from information such as usage, perception toward Samsung	Interpret the data of demographic, behavior, perception to link with intention to buy new model

In-depth interview: the data from the interviews were analyzed based on four main points.

1. Consumer demographic: the demographic information of a respondent who was an existing customer of Samsung such as gender, age, income, education level
2. Consumer behavior on smartphone usage: purpose of smartphone usage, length of usage, the most favorite function or application, important attribute for smartphone purchasing decision making
3. Perception toward Samsung smartphone: perception on both before and after the Samsung Note 7's battery problem on performance, price, reputation, brand image, product variety and etc.
4. Intention to buy new Samsung smartphone in the future after noticing about the Samsung Galaxy Note 7's battery problem

After analyzing the data from qualitative method, the study provided the general information about consumer demographic, smartphone usage, perception toward Samsung and intention to buy new Samsung smartphone. This information was used to design the qualitative research in order to confirm the result from qualitative research.

### **3.3.2 Quantitative data analysis**

The questionnaire was designed based on the analyzed data from the qualitative research in order to get four main aspects from 332 respondents, who currently used Samsung smartphone. The data from this survey on consumer smartphone usage behavior were grouped into factors. After getting factors from factor analysis, the cluster analysis was, then, be conducted to segment Samsung existing consumers based on factors of smartphone usage behaviors. After that the perception toward Samsung smartphone before and after the Samsung Galaxy Note 7's battery problem incident were checked in order to compare mean on their perception toward Samsung. In the next step, the intention to buy Samsung smartphone in the future was checked in each cluster of Samsung user to see an effect on potential sales in the future. In addition, the study of each segment was being performed based on below dummy table.

Table 3.3 Socio-demographic details of study respondents

Characteristic	Data
Age	Mean, Standard Deviation, Median, Range
Gender	Male - n, %, Female - n, %
Education	Less than high school, High school graduate (includes equivalency), Associate's degree, Bachelor's degree, Master's degree, Doctorate degree (Ph.D.)
Occupation	Student, Corporate employee, Government officer, State enterprise officer, Self-employed/Freelance, Business owner, Unemployed

### 3.4 Limitations of the study

Time constraint and limited budget were the limitation for data collecting process and this study. As a result, the survey was conducted through online survey, because offline survey would take more time and budget to complete. With convenience sample method, the sample respondents of this study did not represent all population.

## **CHAPTER 4**

### **RESULTS AND DISCUSSION**

#### **4.1 Secondary research – Key findings**

Samsung Galaxy Note 7 was the flagship smartphone of Samsung Electronics Limited - South Korea Corporation. The model was launched on August 19, 2016 as a new model in Galaxy Note series. Its features were Amoled screen, high performance camera, S-Pen tool and a high capacity battery at 3500 mAh. After official launching, there was a lot of news related to the battery problem bursting into flames. To solve the problem, Samsung stopped selling this model and recalled all Samsung Galaxy Note 7 from customers worldwide, and sent a new phone from a new production line to them; however, customers still encountered the same problem. Samsung, then, announced that the company would permanently discontinue the production and sales of its Galaxy Note7 on October, 11.

There was a study in the US from a Reuters/Ipsos poll (2016) illustrated that the recall of Samsung Galaxy Note 7 did not affect US consumer's willingness to buy Samsung smartphone. The report showed that 91 percent of the current Samsung user would still consider to buy Samsung smartphone in the future, nevertheless, the result was unclear on how much the battery problem would affect consumer decision. This was because of the fact that the study was focusing more on consumer's willingness to buy Samsung smartphone from the current users rather than influence of recall on their decision. The study also showed that the recall had an influence mostly on an early adopter than other Samsung users; hence it limited negative effect to overall user experiences.

#### **4.2 In-Depth Interviews with current Samsung users – Key Findings**

From the in-depth interview with the current Samsung smartphone users, who noticed about Samsung Galaxy Note 7's battery problem, the demographic of five respondents were summarized in the below table.

Table 4.1 Demographic of respondents from in-depth interview

Person (Alias)	Gender	Age	Education	Household size	Household income per month (Baht)	Occupation
A	Male	30	Bachelor's degree	4	120,000	Sales and Marketing executive
B	Female	28	Master's degree	5	300,000	Marketing manager
C	Female	25	Master's degree	3	250,000	Full-time student in Master's degree
D	Male	21	Bachelor's degree	5	70,000	Full-time student in Bachelor's degree
E	Female	60	Associate's degree	4	150,000	Sales manager

Most respondent had good perception toward Samsung smartphone on product quality and they thought that Samsung was one of the leading smartphone in the world, in which it was considered a positive on brand image. On price issue, most of them thought that Samsung smartphone had various product models at different price point depending on specification and performance. Most of them also said that after sales service of Samsung was in an acceptable level, because it had many service centers covering main areas of Bangkok. Regardless of a few number of centers, many centers were packed with people waiting to use the service.

After about the discussion on perception toward Samsung smartphone on various attributes, the respondents were asked about perception on the same attributes after noticing regarding the battery problem in Samsung Galaxy Note 7. Some attributes were affected from the Samsung debacle, such as, brand image, product quality and product safety. They explained that these three attributes were ruined by news related to the Samsung Galaxy Note 7's battery problem. They heard a lot of these information from both offline and online, for example, an announcement on plane to inform passengers with Samsung Galaxy Note 7 to inform a cabin attendant for safety purpose.

Lastly, the respondents were asked about their intention to buy Samsung in the future. Most of them still considered purchasing Samsung smartphone in the future because of feature of product. One of the respondents, who were currently using Samsung Galaxy Note 4, pre-ordered the Samsung Galaxy Note 7 because she preferred the pen feature in the Galaxy Note model. She said that she would wait and buy the next Galaxy Note model that will be launched in the future. She believed that Samsung will improve the quality of its smartphone with more strictly protocols before launching new model.

#### 4.3 Survey questionnaire with current Samsung users – Key Findings

There were 356 respondents participated in the online survey. However, 21 respondents were not the current Samsung smartphone user and three respondents had never heard about the Samsung Galaxy Note 7's battery problem before. Therefore, total numbers of target respondents, who were currently using Samsung smartphone at the time of study and had heard about the Samsung Galaxy Note 7's battery problem, were 332 people. These 332 respondents' data were qualified to be used in the quantitative analysis research as shown in below tables.

Table 4.2 Demographic of respondents from survey

Demographic detail	data
Gender	Male [n = 235 (70.8%)] Female [n = 97 (29.2)]
Age(year)	Less than 15 years old [n = 10 (3%)] 15-24 years old [n = 101 (30.4%)] 25-34 years old [n = 123 (37%)] 35-44 years old [n = 63 (19%)] 45-59 years old [n = 29 (8.7%)] 60 years old and over [n = 6 (1.8%)]
Education	Less than high school [n = 20 (6%)] High school graduate [n = 34 (10.2%)] Associate's degree [n = 33 (9.9%)]



<b>Demographic detail</b>	<b>data</b>
Education	Bachelor's degree [n = 189 (56.9%)] Master's degree [n = 53 (16%)] Doctorate's degree and over [n = 3 (0.9%)]
Household size	1 person [n = 7 (2.1%)] 2 persons [n = 27 (8.1%)] 3-5 persons [n = 218 (65.7%)] more than 5 persons [n = 80 (24.1%)]
Household income	Below 26,000 Baht [n = 56 (16.9%)] 26,000-52,999 Baht [n = 93 (28%)] 53,000-64,999 Baht [n = 37 (11.1%)] 65,000-100,000 Baht [n = 62 (18.7%)] Above 100,000 Baht [n = 84 (25.3%)]
Occupation	Student [n = 94 (28.3%)] Corporate employee [n = 120 (36.1%)] Government officer [n = 31 (9.3%)] State enterprise officer [n = 12 (3.6%)] Self-employed/Freelance [n = 15 (4.5%)] Business owner [n = 43 (13%)] Unemployed [n = 7 (2.1%)] Other [n = 10 (3%)]
Average spending time on mobile usage per day(hour)	1 - 5 hour(s) [n = 117 (35.2%)] Over 5 - 10 hours [n = 138 (41.6%)] Over 10 hours [n = 77 (23.2%)]
Period of the most mobile usage	7 am – 12 pm [n = 22 (6.6%)] 1 pm – 6 pm [n = 88 (26.5%)] 7 pm – 12 am [n = 216 (65.1%)] 1 am – 6 am [n = 6 (1.8%)]

After running the frequency analysis to check for the missing data of all 332 respondents, the study separated total respondents into group by using Q6 (smartphone usage behavior). However, after conducting correlation analysis, it illustrated that there was the high correlation between some activities in Q6 that could lead to Multicollinearity problem. For example, there was a high positive correlation between using instant message application (Q6.10) and using social media (Q6.11) at 0.67. In order to solve the multicollinearity issue, the factor analysis was conducted for grouping variables, which had similar patterns of responses, because they are all associated with a latent.

Table 4.3 Correlation

		<b>Q6.8 Surf internet for entertainment</b>	<b>Q6.9 Play gaming application</b>	<b>Q6.10 Chat with friend/family via instant message application</b>	<b>Q6.11 Socialize with friends via social media</b>
<b>Q6.8 Surf internet for entertainment</b>	Pearson Correlation	1	0.417	0.525	0.621
	N	332	332	332	332
<b>Q6.9 Play gaming application</b>	Pearson Correlation	0.417	1	0.247	0.284
	N	332	332	332	332
<b>Q6.10 Chat with friend/family via instant message application</b>	Pearson Correlation	0.525	0.247	1	0.67
	N	332	332	332	332
<b>Q6.11 Socialize with friends via social media</b>	Pearson Correlation	0.621	0.284	0.67	1
	N	332	332	332	332

The factor analysis was done for Q6.1 to Q6.13 with Varimax rotation. It showed that 13 activities can be factored into five factors accounting for 69.94% of total variance. All 5 factors (defined as “factor 5”) were labeled as Entertainment and Socialization, Personal image, Work related, Phone call and Numerical (See result of factor analysis in below table)

Table 4.4 Factor analysis

	Component				
	1	2	3	4	5
<b>Q6.11 Socialize with friends via social media</b>	.828				
<b>Q6.8 Surf internet for entertainment</b>	.821				
<b>Q6.10 Chat with friend/family via instant message</b>	.781				
<b>Q6.9 Play gaming application</b>	.550				
<b>Q6.7 Listen to the music</b>	.443			-.401	
<b>Q6.13 Be an accessory</b>		.918			
<b>Q6.12 Be cool and innovative</b>		.910			
<b>Q6.5 Manage daily schedule</b>			.845		
<b>Q6.3 Send/ receive email</b>			.635	.464	
<b>Q6.4 Surf internet for work</b>			.613		
<b>Q6.1 Make a phone call</b>				.872	
<b>Q6.2 Check time</b>					.748
<b>Q6.6 Manage financial issue(mobile banking, investment)</b>			.444		-.501

Factor 1: Entertainment and Socialization factored from Q6.7 to Q6.11

Factor 2: Personal image factored from Q6.12 and Q6.13

Factor 3: Work related factored from Q6.3 to Q6.5

Factor 4: Phone call factored from Q6.1

Factor 5: Numerical factored from Q6.2 and Q6.6

After categorizing activities into 5 factors, the cluster analysis was conducted in order to group respondents based on 5 factors of smartphone usage behavior. The finding from hierarchical cluster analysis illustrated that the target consumers should be clustered into either 3 or 4 clusters due to high difference of coefficient. Then, the Twostep cluster analysis was conducted resulting in 4 cluster-options that provided more interpretable segment and stronger characteristic for each cluster. The characteristic of each segment was based on the smartphone usage behavior, in which it could be identified as follows:

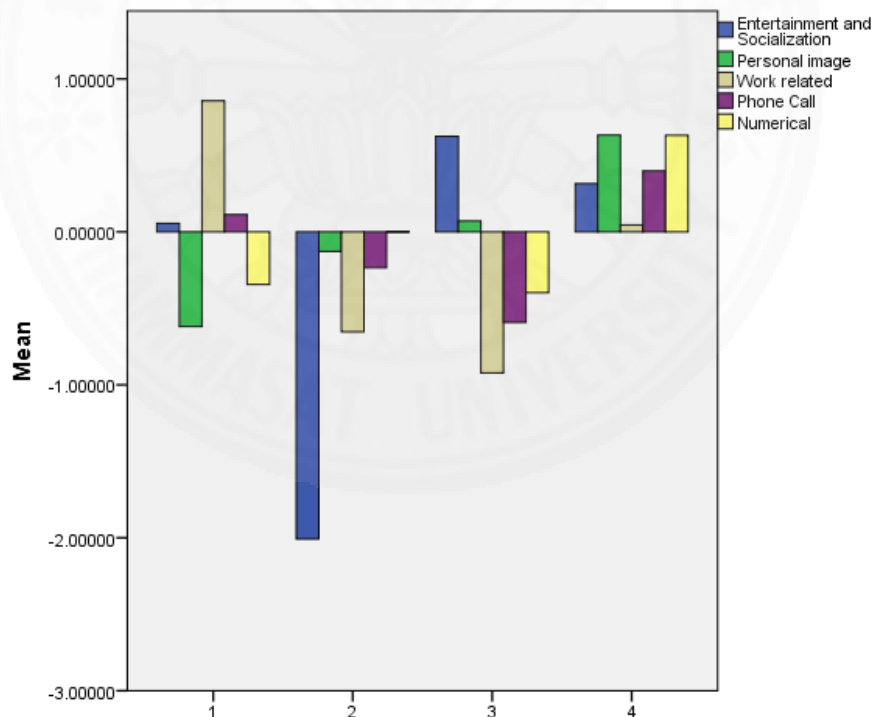


Figure 4.1 Twostep cluster analysis

Cluster 1 Work focusing user (n = 108): Respondents in this cluster focused their smartphone usage on work related issue, such as, sending email, managing daily schedule and surfing internet for their work. They would also use a smartphone for entertainment, socialization and call as a minor reason. People in this group could be a businessman and an office worker.

Cluster 2 Light user (n = 43): Respondents in this cluster focused on nothing. They used a smartphone as a watch and accessories. Comparing to other clusters, this group used a smartphone less for entertainment and socialization purpose. People in this group could be a highly introverted person.

Cluster 3 Entertainment and socialized user (n = 75): Respondents in this cluster mainly used their smartphones for socialization and entertainment reason. They could use a smartphone as an accessory; however, they rarely used a smartphone for a working purpose.

Cluster 4 All activities user (n = 106): Respondents in this cluster used their smartphones in all activities. The most focus activities were for personal image and numerical aspect like clock and financial issue. The less focus activities were entertainment, socialization and phone call. They would somewhat use a smartphone for a working purpose.

After clustering respondents in to 4 groups, the researcher would like to check the perception of respondents toward Samsung on various attributes, which were Brand image, Price, Product quality, Performance, Product function, Mobile interface, Design, Variety of product, After sales service and Product safety. The paired-sample t-test was conducted in order to compare means on those attributes whether the Samsung Galaxy Note 7's battery problem had an effect on them or not.

Table 4.5 Paired-sample t-test analysis

Pair between before and after the Samsung Galaxy Note 7's battery problem		Paired Differences		t	Sig.
		Mean	Std. Deviation		
Pair 1	Brand image	.72642	1.09138	6.853	.000
Pair 2	Price	.15094	.81407	1.909	.059
Pair 3	Product quality	.77358	1.16523	6.835	.000
Pair 4	Performance	.46226	.97760	4.868	.000
Pair 5	Product function	.34906	.70431	5.103	.000
Pair 6	Mobile interface	.28302	.67266	4.332	.000
Pair 7	Design	.19811	.88823	2.296	.024
Pair 8	Variety of product	.20755	.75235	2.840	.005
Pair 9	After sales service	.08491	.87416	1.000	.320
Pair 10	Product safety	.94340	1.24847	7.780	.000

The result showed that overall target respondent's perception toward Samsung smartphone on various attributes had significant change ( $P < 0.05$ ), except for after sales service. The result illustrated that the Samsung Galaxy Note 7's battery problem definitely had an impact on Samsung brand on various aspects. In order to leverage the cluster analysis, the researcher also conducted the Paired-sample t-test analysis separately for each cluster, in which the below tables showed result from the analysis.

Table 4.6 Paired-sample t-test analysis of each cluster

Pair between before and after the Samsung Galaxy Note 7's battery problem	Paired Differences							
	Cluster 1		Cluster 2		Cluster 3		Cluster 4	
	Mean (SD*)	Sig.	Mean (SD*)	Sig.	Mean (SD*)	Sig.	Mean (SD*)	Sig.
1. Brand image	0.84 (1.05)	.000	0.79 (1.10)	.000	0.75 (1.03)	.000	0.73 (1.09)	.000
2. Price	0.33 (0.89)	.000	0.40 (0.62)	.000	0.20 (0.96)	.075	0.15 (0.81)	.059
3. Product quality	0.76 (1.18)	.000	0.74 (0.95)	.000	0.80 (1.24)	.000	0.77 (1.16)	.000
4. Performance	0.5 (1.04)	.000	0.60 (0.88)	.000	0.51 (1.09)	.000	0.46 (0.98)	.000
5. Product function	0.34 (0.73)	.000	0.40 (0.76)	.001	0.31 (0.93)	.006	0.35 (0.70)	.000
6. Mobile interface	0.27 (0.69)	.000	0.40 (0.76)	.001	0.21 (0.83)	.028	0.28 (0.67)	.000
7. Design	0.36 (1.06)	.001	0.33 (0.84)	.015	0.24 (0.79)	.010	0.20 (0.89)	.024
8. Variety of product	0.23 (0.65)	.000	0.33 (0.78)	.009	0.23 (0.92)	.037	0.21 (0.75)	.005
9. After sales service	0.04 (0.87)	.661	0.02 (0.71)	.830	0.07 (0.72)	.427	0.08 (0.87)	.320
10. Product safety	1.01 (1.24)	.000	0.95 (0.90)	.000	1.12 (1.22)	.000	0.94 (1.25)	.000

\*Standard Deviation

The result by cluster was quite similar with the total respondent, except for a few attributes that had no significant change on mean.

Cluster 1 Work focusing user: The result in this cluster was the same as total respondent. There was only after sales service that had no effect from the Samsung Galaxy Note 7's battery problem.

Cluster 2 Light user: It showed the same result as total respondents as well. They had indifferent perception on after sales service before and after the incident.

Cluster 3 Entertainment and socialized user: This cluster showed the same result on after sales service; however, price did not have any significant change for them after the Note 7 incident.

Cluster 4 All activities user: The result from this cluster was the same as cluster 3. The perception on Samsung on two attributes had no difference comparing before and after the battery problem incident.

After considering on attributes that had significant changes on users' perception, the researcher also checked the intention to buy Samsung smartphone in the future from target respondents from Q20, in which the result was showed in the below table.

Table 4.7 Intention to buy Samsung smartphone in the future

			TwoStep Cluster Number				Total
			1	2	3	4	
Intention to buy Samsung smartphone in the future after noticing about the Samsung Galaxy Note 7's battery problem	Yes	Count	93	34	70	98	295
		%	86.1%	79.1%	93.3%	92.5%	88.9%
	No	Count	15	9	5	8	37
		%	13.9%	20.9%	6.7%	7.5%	11.1%
<b>Total</b>		Count	108	43	75	106	332
		%	100.0%	100.0%	100.0%	100.0%	100.0%

The result illustrated that overall current Samsung smartphone users still considered to buy Samsung smartphone in the future with 88.9%. There were only 11.1% of the total respondents, who decided to switch to other brands. When interpreting the result by cluster, the third (Entertainment and socialized user) and fourth cluster (All activities user) had the highest potential to buy Samsung smartphone again at over 90%. While the second cluster (Light user) showed the lowest intention to purchase Samsung smartphone in the future at 79.1%. The first



cluster (Work focusing user) also provided high number of intention to purchase Samsung smartphone at 86.1%.



## **CHAPTER 5**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Conclusion**

According to the result from online survey with 332 respondents, the majority of the respondents were male with the age between 25 to 34 years old, which were Millennials. They were the fast adopters of technology. Over 55% of this group had a Bachelor's degree and lived in medium size family with 3 to 5 members. Over one third of them were corporate employees with varied household income from 26,000 to over 100,000 Baht per month. An average time of spending on the smartphone per day was over five to ten hours. The prime period that 65% of target respondents used smartphone was evening period at 7.00 PM - 12.00 AM. The most favorite mobile application was Facebook with over one third of the total respondent choosing Facebook as their favorite application. The main reason was that Facebook provided a channel for users to connect with their friends and families.

On the smartphone purchasing behavior, the main criteria in smartphone purchasing were Performance, Product quality, Product function and Product safety. 57% of respondents purchased new smartphone every two to three years; therefore, it was an opportunity period for Samsung to prove that the product quality has been improved to meet the safety standard. On the Samsung smartphone usage behavior, top three usage functions were social media application, instant chatting application and camera.

The consumer usage behavior questions were grouped into five main factors, which were entertainment and socialization, personal image, work related, phone call and numerical. Then, the researcher segmented target respondents that had similar smartphone usage pattern into four clusters: cluster 1 "Work focusing user" (n = 108), cluster 2 "Light user" (n = 43), cluster 3 "Entertainment and socialized user" (n = 75), and cluster 4 "All activities user" (n = 106). Because each cluster had different smartphone usage behavior, Samsung could develop tailor-made actions and strategies to handle each group. The implication of each cluster could be explained basing from their smartphone usage behavior as following.

Cluster 1 Work focusing user (n = 108): This cluster represented the smartphone users, who used it mainly for a working purpose. It was the largest cluster accounting for 32.5% from the total sample size. Samsung should prioritize this large group of people on bringing back their confidence on Samsung. 40% of people in this cluster had an age between 25 to 35 years old. They spent less time for an entertainment purpose, socialization and call on a smartphone. The most popular application among this group was Line, since it was an instant chatting application suitable for communication in work. So, Samsung should leverage the use of this application to promote Samsung's brand with the right communication.

Cluster 2 Light user (n = 43): This cluster had no focus on any factor comparing to other clusters. Smartphone could be used as a watch and accessories. This group used smartphone a lot less than other clusters for entertainment and socialization purpose. From the total clusters, this group was the smallest size of sample accounting for only 13% of the total respondents. Since, there was no specific interest from this cluster, it could be difficult for Samsung to execute exact activities serving this group.

Cluster 3 Entertainment and socialized user (n = 75): Using smartphone for socialization and entertainment were the key usages for people in this cluster. They also used smartphones as accessories. However, comparing to other clusters, this group was the least smartphone user for working purpose. The size of this group was at a moderate size comparing to other clusters at 22.6% of the total respondents. The most favorite application for this group was Facebook with 36% of usage among the respondents in this cluster.

Cluster 4 All activities user (n = 106): This cluster used a smartphone in all defined factors. They focused on using a smartphone for personal image and numerical issues, following with phone call, entertainment and socialization. Comparing to other factors, working was the activity that they used the least. There were 106 people in this group covering 31.9% of the total respondents, which was slightly lower than cluster 1 (32.5%), therefore, this was another cluster that Samsung should focus on rebuilding their reputation among this group.

Regarding to the perception toward Samsung brand on ten attributes, the researcher compared all attributes with both before and after the Samsung Galaxy Note 7's battery problem. According to Paired-Sample t-test, the result showed that nine attributes had a significant on the Note 7 incident. After sales service was the only attribute with no significant change. Three attributes had the biggest impact from the incident, which were Product safety, Brand image and Product quality. Because of this finding, it was very important mission for Samsung to rebuild their brand and confident from customers on these three attribute. Some attributes did not receive any impact the Samsung Galaxy Note 7's battery problem, like Mobile interface and Variety of product, yet the target respondents seems to have less perception on them. This result can be implied that this debacle was not only having negative effect on specific attributes of the brand, but also ruining the brand in total.

Although perception on Samsung brand had a negative impact from the Note 7's situation, surprisingly, overall intention to purchase Samsung brand was still at a high level. According to the survey result, 88.9% of the sample still considered to buy Samsung smartphone in the future. The main reasons were 1) they satisfied with the performance, feature and price of Samsung smartphone 2) they believed that Samsung will use this incident to be a lesson learned and will improve its production process and quality control before launching new product to the market 3) they were the loyalty customer to Samsung brand.

## **5.2 Recommendations**

According to the result from the survey, impact from the Note 7's battery problem has opposed effect to Samsung brand image. Therefore, Samsung must execute strategies to win back confident from end users and rebuild trust to the brand as soon as possible. They can start with the majority of respondents in this study, which are cluster 1 (Work focusing user) and cluster 4 (All activities user) that accounted for 64% of the total respondents. The main media channel for strategy execution for these two clusters can be Facebook and Line application, in addition, these channel will also reach cluster 3 (Entertainment and socialized) that focuses mainly on social media and entertaining application.

Samsung has to be very careful and acts quickly on this matter, since they are not the only player in the android smartphone market. There are various brands swimming in the same ocean with Samsung offering unique features and high performance smartphone, such as, Huawei and Google phone. Another important thing that Samsung has to focus is maintaining and creating brand loyalty among customers. According to the question from survey on their intention to purchase Samsung in the future, most respondent answered “Yes” to this question because they were loyalty to the brand. Samsung has to maintain existing loyal customers because 1) cost of acquiring new customers is high, 2) loyalty customers provides higher life time value than normal customers, 3) it can prevent customer from brand switching to user competitor’s phone and 4) it can create positive word of mouth resulting in a lower cost of acquiring new customer. In order to create the loyalty, Samsung must have the continuous development on products and services. A tremendous budget has to be provided to research and development, because it is the competitive edge that will make Samsung differentiate and standing out from the competitors.

## REFERENCES

- Brandão, M., Yamada, Y., Ponchio, M., Cordeiro, R., Strehlau, V. (2016). The influence of product recall on consumer loyalty. *Raunimep*, 14, 155-160
- Chen, B., Sang-hun, C. (2016), “Why Samsung abandoned its Galaxy Note 7 flagship phone,” NYtimes, accessed December 12, 2016 at: [http://www.nytimes.com/2016/10/12/business/international/samsung-galaxy-note7-terminated.html?\\_r=0/](http://www.nytimes.com/2016/10/12/business/international/samsung-galaxy-note7-terminated.html?_r=0/)
- CNET. “Samsung Galaxy Note 7 review” accessed November 7, 2016 at: <https://www.cnet.com/products/samsung-galaxy-note-7-review/>
- CNN Tech. “Samsung kills off Galaxy Note 7 smartphone” accessed December 12, 2016 at: <http://money.cnn.com/2016/10/11/technology/samsung-galaxy-note-7-discontinued/>
- Ericsson Mobility Report. “On the pulse of the networked society”, accessed December 12, 2016 at: <https://www.ericsson.com/res/docs/2016/ericsson-mobility-report-2016.pdf/>
- Euromonitor. “Mobile phones in Thailand”, accessed November 7, 2016 at: <http://www.euromonitor.com/mobile-phones-in-thailand/report/>
- Ferenčić, M., & Wölfling, A. (2013). Impact of quality inconsistency on brand loyalty. *CROMAR Congress*, 23, 491- 505
- Horwitz, J. (2017), “Samsung finally explained what caused the Galaxy Note 7 explosions,” Quartz, accessed April 2, 2017 at: <https://qz.com/892221/samsung-ssnlf-finally-explained-what-caused-the-galaxy-note-7-explosions/>
- Kovach, S. (2017), “Samsung announces what caused the Galaxy Note 7 to overheat and explode,” Business Insider, accessed April 2, 2017 at: <http://www.businessinsider.com/samsung-issues-galaxy-note-7-battery-report-2017-1/>
- Marketingprof. “Bad News (About Brands) Travels Fast,” accessed December 12, 2016 at: <http://www.marketingprofs.com/charts/2011/4669/bad-news-about-brands-travels-fast/>

- Reisinger, D. (2016), "Why it's time for Samsung to discontinue the Galaxy Note 7," Fortune, accessed December 12, 2016 at: <http://fortune.com/2016/10/07/discontinue-galaxy-note-7/>
- Rhee, M.; Haunschild, P. (2006), "The Liability of Good Reputation: A Study of Product Recalls in the U.S. Automobile Industry," Organization Science, accessed November 27, 2016 at: <http://pubsonline.informs.org/doi/abs/10.1287/orsc.1050.0175/>
- Stadd, A. (2013), "Good news travels faster than bad on social networks," Adweek, accessed December 12, 2016 at <http://www.adweek.com/socialtimes/good-news-social-networks/479660/>
- Statt, N. (2016), "Samsung runs full-page apology ads over Galaxy Note 7 recall," The Verge, accessed April 2, 2017 at: <http://www.theverge.com/2016/11/7/13558442/samsung-galaxy-note-7-recall-apology-ad>
- Thaivisa. "Smartphone subscriptions in Thailand to hit 50 million by end of 2016", accessed November 7, 2016 at: <http://tech.thaivisa.com/smartphone-subscriptions-in-thailand-to-hit-50-million-by-end-of-2016/15954/>
- The Guardian. "Samsung Galaxy Note 7: airlines across Asia, the US and Europe ban exploding smartphone" accessed December 12, 2016 at: <https://www.theguardian.com/technology/2016/oct/17/samsung-galaxy-note-7-airlines-asia-us-europe-ban-exploding-smartphone/>
- The Guardian. "Samsung warns of £4bn hit to profits from Galaxy Note 7 fallout" accessed December 12, 2016 at: <https://www.theguardian.com/business/2016/oct/14/samsung-galaxy-note-7-smartphone-profits-warning/>
- Todd, D. (2016), "Galaxy Note 7 recall did not damage Samsung brand in U.S.: Reuters/Ipsos poll," Reuters, accessed November 27, 2016 at: <http://www.reuters.com/article/us-samsung-elec-recall-brand-idUSKBN13F146/>

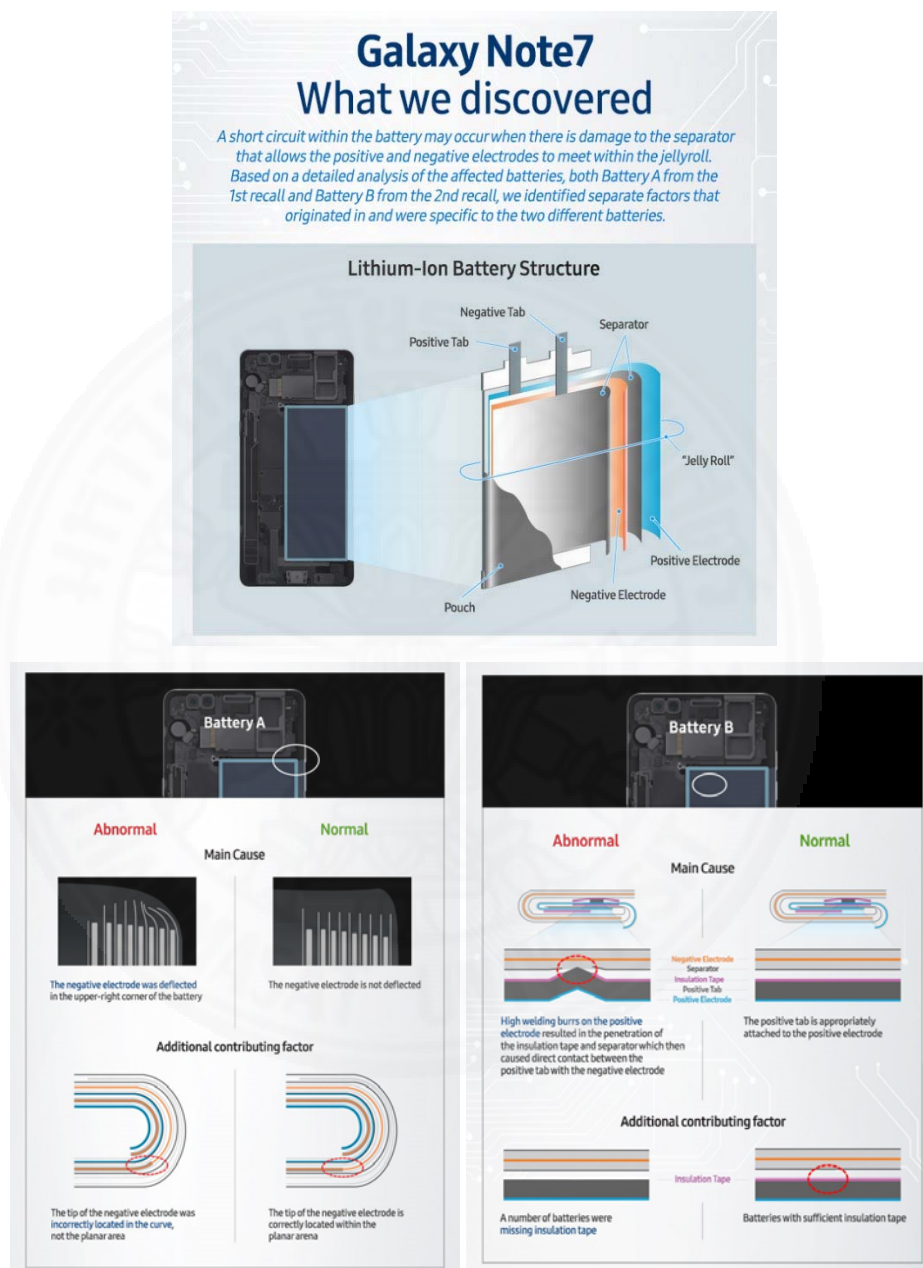


**APPENDICES**



## APPENDIX A

### INFOGRAPHIC ON THE NOTE 7'S BATTERY PROBLEM



Source: Infographic Galaxy Note7: What We Discovered

## **APPENDIX B**

### **IN-DEPTH INTERVIEW QUESTIONS**

1. Are you the current user of Samsung smartphone?
2. Which model of Samsung smartphone do you normally use?
3. Please describe your perception toward Samsung smartphone on following aspects?
  - Brand image
  - Price
  - Product quality
  - Performance
  - Product function
  - Mobile interface
  - Design
  - Variety of product
  - After sales service
  - Product safety
4. Why do you select Samsung smartphone to be your main smartphone for daily life usage?
5. Which function of Samsung smartphone do you use, excepting phone function?
6. How many hour do you use smartphone in a day?
7. What is your favorite mobile application? Why?
8. Do you plan to purchase new smartphone soon (within 2-3 months)?
9. Have you heard about the Samsung Galaxy Note 7's battery problem? How do you feel about this news?
10. Has your perception toward Samsung smartphone on following aspects changed after getting information about the Note 7?
  - Brand image
  - Price
  - Product quality
  - Performance
  - Product function

- Mobile interface
- Design
- Variety of product
- After sales service
- Product safety

11. Will you still consider Samsung smartphone as you next smartphone? Why?



## APPENDIX C

### SAMSUNG SMARTPHONE USER QUESTIONNAIRE

Questionnaire for Samsung smartphone user toward the Samsung Galaxy Note 7's battery problem on perception and intention to purchase Samsung smartphone in the future

The questionnaire aims to study on Samsung smartphone user's perception and intention to purchase Samsung smartphone in the future. All data will be collected in confidence and all respondents automatically remain anonymous.

This survey will take no longer than 10 minutes to complete. It is conducted by the student in Master of Science Program in Marketing (International Program), Faculty of Commerce and Accountancy, Thammasat University.

---

#### **Section A: Screening questions**

1) Are you the current user of Samsung smartphone?

Yes                       No

2) Have you heard about the Samsung Galaxy Note 7's battery problem?

Yes                       No

#### **Section B: Smartphone usage behavior questions**

3) How many hour(s) do you spend on your smartphone on average in a day?

\_\_\_\_\_ hour(s)

4) What is the period that you spend time on smartphone the most?

7 am – 12 pm                       1 pm – 6 pm  
 7 pm – 12 am                       1 am – 6 am

5) Do you agree with the following statement?

Statement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Smartphone is very important equipment for you, so you cannot live without it?					

6) Please describe how often you use smartphone for the following activities

	Never	Slightly	Moderately	Frequently	Always
I use it to.....	use	use	use	use	use
6.1 Make a phone call					
6.2 Check time					
6.3 Send/ receive email					
6.4 Surf internet for work					
6.6 Manage daily schedule					
6.6 Manage financial issue (mobile banking, investment)					
6.7 Listen to the music					
6.8 Surf internet for entertainment					
6.9 Play gaming application					
6.10 Chat with friend/family via instant message application (Line, Whatsapp, Wechat, etc)					
6.11 Socialize with friends via social media e.g. Facebook, Instagram					
6.12 Be cool and innovative					
6.13 Be an accessory					

7) What is your favorite mobile application? Why?

\_\_\_\_\_ Because \_\_\_\_\_

8) How many smartphone do you normally use in daily life?

One

Two

Three

More than 3 smartphones

9) If you have more than one smartphone, what is the brand of smartphone that you use the second-most? (Only respondent who has more than one smartphone)

Samsung

Apple

Huawei

Sony

HTC

Xiaomi

Asus

Lenovo

LG

Oppo

Other, please specify \_\_\_\_\_

10) What is your purpose of the usage of your second smartphone?

Work

Promotion package from mobile operator

Internet usage

Standby

Other, please specify \_\_\_\_\_

### **Section C: Smartphone purchasing behavior questions**

11) How often do you purchase new smartphone?

More than once a year

Once a year

Every 2-3 years

More than 3 years

12) How much do you spend on your smartphone?

Lower than 5,000 THB

5,000 – 10,000 THB

10,000 – 15,000 THB

15,000 – 20,000 THB

More than 20,000 THB

13) How important are following attributes to your smartphone purchase?

Attribute	Not important	Somewhat important	Important	Very important	Extremely important
13.1 Brand image					
13.2 Price					
13.3 Product quality					
13.4 Performance					
13.5 Product function					
13.6 Design					
13.7 Mobile interface					
13.8 Operating system					
13.9 After sales service					
13.10 Product safety					

14) Do you plan to purchase new smartphone soon?(within 2-3 months)

Yes

No

15) Which brand of smartphone are you likely to purchase?

Samsung

Apple

Huawei

Sony

HTC

Xiaomi

Asus

Lenovo

LG

Oppo

Other, please specify \_\_\_\_\_

**Section D: Samsung smartphone detail and usage questions**

16) Which model of Samsung smartphone do you normally use?

\_\_\_\_\_

17) Which function of Samsung smartphone that you normally use?

(Can answer more than 1 choice)

- Phone  Internet  
 Instant message application (Line, Whatsapp)  Social media application  
(Facebook, Instagram)  
 Listen to the music  Camera  
 Gaming application  Email

**Section E: Perception toward Samsung and intention to buy questions**

18) Please indicate your perception score with the following aspects about the Samsung smartphone.

Attribute	Poor	Fair	Good	Very Good	Excellent
18.1 Brand image					
18.2 Price					
18.3 Product quality					
18.4 Performance					
18.5 Product function					
18.6 Mobile interface					
18.7 Design					
18.8 Variety of product					
18.9 After sales service					
18.10 Product safety					



19) Please indicate your perception score with the following aspects about the Samsung smartphone **after** you heard about the Samsung Galaxy Note 7's battery problem.

Attribute	Poor	Fair	Good	Very Good	Excellent
19.1 Brand image					
19.2 Price					
19.3 Product quality					
19.4 Performance					
19.5 Product function					
19.6 Mobile interface					
19.7 Design					
19.8 Variety of product					
19.9 After sales service					
19.10 Product safety					

20) After you heard about the Samsung Galaxy Note 7's battery problem, will you still consider Samsung smartphone as you next smartphone?

Yes

No

21) Please give the reason supporting answer from 20)

---

**Section F: Demographic characteristics**

22) What is your gender?

Male

Female

23) What is your age?

Less than 15 years old

15-24 years old

25-34 years old

35-44 years old

45-59 years old

60 years old and over

24) What is the highest degree or level of education you have completed?

Less than high school

High school graduate (includes equivalency)

Associate's degree

Bachelor's degree

Master's degree

Doctorate's degree and over

Others, please specify \_\_\_\_\_

25) What is your household size?

1 person

2 persons

3-5 persons

more than 5 persons

26) What is your household income per month?

Below 26,000 Baht

26,000-52,999 Baht

53,000-64,999 Baht

65,000-100,000 Baht

Above 100,000 Baht

27) What is your current occupation?

- Student
- Corporate employee
- Government officer
- State enterprise officer
- Self-employed/Freelance
- Business owner
- Unemployed
- Other, please specify \_\_\_\_\_



## **BIOGRAPHY**

Name	Mr. Supak Apitanawit
Date of Birth	October 3 <sup>rd</sup> , 1986
Educational Attainment	2010: Bachelor of Arts in Economics Chulalongkorn University, Thailand
Work Position	Full-time student
Work Experience	2012 – 2016: International Business Executive Double A (1991) Public Company Limited

