

NATIONAL CHENG KUNG UNIVERSITY
INSTITUTE OF INTERNATIONAL
MANAGEMENT



Qualitative Research Method

**To understand the relationship between the
smart phone and its users**

Prepared by: Rachel Lin, Sam Lin, Chao Lin

Advised by

Dr. James Stanworth

I. Introduction:

Smart phone is a high-end mobile phone that combines the functions of a personal digital assistant (PDA) and a mobile phone (Schmidt, Aidoo et al. 1999). It has a variety of the functions including portable media player (CD, TV, Video), camera, high-resolution touch screens (Rohs and Gfeller 2004), web browsers (Wu, Garfinkel et al. 2004), GPS navigation (Makino, Ishii et al. 1997), TV (Paulson 2006), music listening (Cunningham, Jones et al. 2004) and etc. In the modern world, almost everyone has at least one cellular phone (莊懿妃, 蔡義清 et al. 2007).

ek

According to the Analytic Strategy “the global smartphone shipments grew a healthy 76 percent annually and they have reached a record of 110 million units in quarter 2, 2011” (Spektor October 27, 2011 10:33 PM Eastern Time). This means that more and more people are using smart phone nowadays and the usage is becoming an important daily activity. However, there are some dis-benefits. First of all, it will disturb others while the users are in class, during the meeting, or in public transportation when ringing all of a sudden and disturb the users while they sleep, work or read when a quiet environment is preferred. Second, individual privacy is always questioned and seems to be deprived as more and more information is being stored into the device. Third, users tend to neglect others while they are playing games, watching movies or listening to music with the device. In addition, those

dis-benefits can jeopardize users' relationships with others. Our goal is to find out how the users of smart phone manage the relationship with family, friends, colleagues and others via the benefits or dis-benefits of smart phone. We try to discover whether they can overcome the dis-benefits of smart phone and whether the benefits of smart phone can increase the ability of managing relationships with others.

Fit research questions here

II. Background

We choose qualitative research method (Gale and Wood 1994; Spiggle 1994) to conduct the study on this topic related to smart phone. By learning qualitative research method from this preliminary study we can also utilize it as one of the ways to establish the foundation of our future dissertation research and writing (Saunders, Lewis et al. 2009). Today, mobile phone almost becomes a basic equipment for everyone and the smart phone has also greatly increased its user base (Saponas, Lester et al. 2008). What are the reasons? Is smart phones considered too expensive, too big (heavy), or too smart? Elders use mobile phone for communication with their friends, family or for the business usage; however, the younger generation is not satisfied with the basic functions that regular mobile phone offers. They want to buy smart phone due to its multiple functions such as web browser, swift data searching, position mapping, information sharing, entertainment, and much more. However,

the dis-benefits are also included with the smart phone. They are the higher costs to the consumers, relatively shorter battery duration, weakening individual privacy and the disturbance caused by the usage. Could those dis-benefits be overcome by the benefits of smart phone? The convenience of using smart phone might influence the relationships between users and their family, friends, colleagues and others.

III. Research Objectives

Mobile phone now is very popular nowadays and it has some benefits and dis-benefits. You can communicate with others almost anytime and anywhere but you also might be disturbed by it anytime and anywhere. It might cause the interruption while you are taking nap, working or reading on transportation, or when you concentrate in a speech. Smart phone has so many modern functions that it induces our interests to conduct a research. Our goal is to find out if the users of smart phone can increase the ability of managing the relationships with his or her family, friends, colleagues and others via the benefits of smart phone no matter how heavily, moderate or lightly they are using the smart phone and those dis-benefits of smart phone can be overcome. We want to understand and find out how those smart phone users manage the relationships with other people via the benefits and dis-benefits of smart phone and if the benefits of using smart phone can link their

Ok, here or above.

relationship with the fellow users closer.

IV. Methodology

The research methodology to be used by the researcher and it consists of primary and secondary research.

Secondary research

This secondary research includes the studying of the relevant references, books, journal papers and useful information. We choose the method of critical incident

technique (Butterfield, Borgen et al. 2005) as our basic research way and we make a little modification. In addition, our research philosophy is more interpretive

Incidents may be critical but the technique i.e., as a method is different

(Saunders, Lewis et al. 2009). We use the judgemental sampling (Saunders, Lewis et al. 2009) and the criterion of the interviewees must have experiences of using smart

phone more than one year and they are still using and own at least one smart phone

(Schreuder, Gregoire et al. 2001). These interviewees are from our organizations,

students, friends, sales representatives, engineers and so on. The background of our

sampling is shown as follow: 30 respondents, 19 females and 11 males.

Student: 5 Working professional in engineering: 2 (From Tainan) Nurse : 5 Sales

representative : 4 Technician : 2 Doctor: 1 (From Chia-Yi) Customer Service : 5

Sales Representative: 6 (From Kaohisung) Because time and resource are limited.

The sample size is small and separated in three places due to different residencies of researchers.

Primary research (Saunders, Lewis et al. 2009)

1. Use non-standardized one to one and face to face (semi-structured interview)
2. Formulate open questions with critical incident technique
3. The length of interview is about 30 to 50 minutes and chose a place that could not be disturbed such as cozy coffee shop, research room or others to conduct the interviews. The use of record is depended on the willingness of interviewees.
4. Description the data from the interview, analyze by using coding that categorize, tableau it.
5. If the result is positive, it may encourage more potential users shift from mobile phone to smart phone.

We took the interview in three different places because of the residency of our researchers. One is in Tainan, the second is Kaohsiung, and the third is Chia-Yi.

The following questions were asked:

- a. What are the benefits that smart phone users might get.
- b. Where can the smart phone users manage the relationships via those benefits?

c. Who are the persons that the smart phone users want to have close relationships

via those benefits?

You might explain - structure
(how structured?)
- rational for the questions

d. How the smart phone users manage the relationships with

benefits?

e. What are the dis-benefits of smart phone users to manage relationships with

friends, family, colleagues and others?

Results and discussion

The samples divided to three **Marketing - 'segments'** heavy users (20 people)(more than 6 hours/day), second is for moderate users (9 people)(between 1 to 6 hours/day), and the third is for light users (1 person)(less than one hour/day). Because our researchers have different approaches, so we have three different ways to coding (Mintzberg 1973). The coding of the data at the beginning were: working, making girlfriend, convenient, internet browsing, communicating, send and receive E-mail, text, photo, topics of conversation, sharing, looking information and navigation, playing games, see the video, movie, TV, listening the download the applications, facebook, skype, MSN, friends locator. **Explanation could be clearer here - build of categories is by one researcher or by group** we had collected the data and divided into 5 dimensions such as communicating, sharing, entertaining, mapping and internet browsing. The percentage of each category is used to manage

their relationships (Corbin and Strauss 2008). In addition, the dis-benefits from smart phone include no privacy, neglecting their friends or family, and disturbance by other users. How do they overcome the dis-benefits of smart phone and not have any bad influences to the relationships. We list the categories and the coding as followed:

1. Communicating: Call and receive calls, send and receive Email, Text Message, MSN, Skype, Facebook.
2. Sharing: Photos, Information, Facebook, Thoughts.
3. Entertaining : Game, Music, Video, Movie, TV.
4. Mapping : Navigation, Food, Restaurant, Gas station, Shopping mall.
5. Internet browsing : News, Looking data

The results of dis-benefits of smart phone were not mentioned during the interviews

so we only categorized in three dimensions.

Not many?

Axial coding? How did this process happen? This part of the analysis could usefully be explained here.

1. Privacy: very few of the interviewees felt no privacy.
2. Neglect others: Some of the heavy users have this feeling but can be understood by their friends or family.

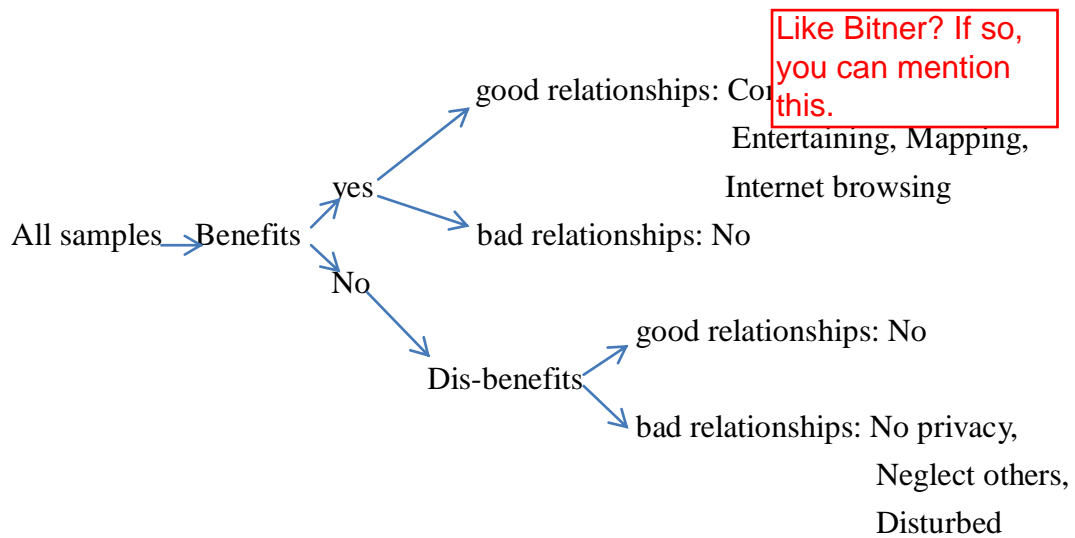
3. Disturbed by others: Everyone had this experience but they took tolerate.

We use the diagram to show the relationships (Figure 1). We analyzed our

data and found the percentage of the different type of users and the percentage with

the functions (Table 1). Then we use 3 grades to see the weight of those functions in managing relationships: 0 is no, 1 is fair, 2 is good and 3 is best (Table 2). We use the percentage to show those dis-benefits which influent your relationships mostly. (Table 3). (Bitner, Booms et al. 1990)

Besides, we analyzed the categories and used our data to classify the weight of categories and see what the best is to help the respondents to manage their relationships with others.



<Figure.1>

Title needed

Table 1 The percentage of using different users in these benefits

Group and category	Communicating	Sharing	Entertaining	Mapping	Internet browsing
Group1 Heavy users(20)	25%	25%	20%	5%	25%
Group 2 Moderate users(9)	40%	20%	10%	5%	25%
Group 3 Light users(1)	80%	0%	0%	5%	15%

A useful direction. With more data this *querying* of the data could yield useful segmentation insights.

Table 2. The grades of different users to increase the managing relationships via those benefits categories (0= no,1=fair, 2=good, 3=best)

Group and category	Communicating	Sharing	Entertaining	Mapping	Internet browsing
Group1 Heavy users(20)	2	3	2	1	1
Group 2 Moderate users(9)	2	2	2	1	2
Group 3 Light users(1)	1	0	0	2	1

Table 3. The percentage of the dis-benefits in the different users

Group and category	Privacy	Neglect others	Disturbed
Group1 Heavy users(20)	10%	75%	100%
Group 2 Moderate users(9)	0%	33%	100%
Group 3 Light users(1)	0%	0%	100%

VI. Conclusion

After analyzing the data we found the most useful

relationships is sharing and other benefits such as communication, entertaining,

Link back more explicitly to the research question here.

You could also raise limitations and directions for further research.

mapping and internet browsing also play some roles. One of the respondents said that she would use the game in smart phone to soothe her nephew's bad mood. The other said that he could discuss with others how to break the game and get the highest point. Most of our respondents share their joys via photos, such as the ceremony of wedding, graduation from school, or some very beautiful scenes or funny scenes and those photos could transmit immediately. And the dis-benefits to them are not so important as comparing with those benefits. And the privacy was the least concern and it might be due to the unawareness in the Eastern culture.

Our respondents can manage their relationships with family, friends, colleague and others very well via these benefits of smart phone. Most of them increase the ability to manage their relationships with others. But the dis-benefits they choose to tolerate.

Finally, smart phone is a high-end product and it also has benefits and dis-benefits like two facets of sword. Sometimes the benefits are good enough to overcome the dis-benefits but sometimes are not. People live in this modern world should find the balance to make them comfortable as the world still in progression.

V. Schedule

Research objective formulated , Class 2 and 3 (Oct. 1st – Oct. 15th)

Questionnaire survey, Class 4 and 5 (Oct 29th – Nov. 12th)

Data analysis, Class 6 and 7 (Nov 26th – Dec. 10th)

Discussion with class, Class 8 (Dec. 24th)

Submission, Class 9 (Jan. 7th)

VI. Costs

1. Stationery, printing and small related costs.
2. Cost of the snacks while conduct one-on-on interview.

The costs attach to this research will be shared by our group.

VII. Confidentiality

The information obtained from the interviewees will be anonymous and the report will be strictly confidential for academic purposes.

References :

Bitner, M. J., B. H. Booms, et al. (1990). "The service encounter: diagnosing favorable and unfavorable incidents." The Journal of Marketing: 71-84.

Butterfield, L. D., W. A. Borgen, et al. (2005). "Fifty years of the critical incident technique: 1954-2004 and beyond." Qualitative Research 5(4): 475.

Corbin, J. M. and A. L. Strauss (2008). Basics of qualitative research: Techniques and procedures for developing grounded theory, Sage Publications, Inc.

Cunningham, S. J., M. Jones, et al. (2004). Organizing digital music for use: an examination of personal music collections.

Gale, B. T. and R. C. Wood (1994). Managing customer value : creating quality and service that customers can see. New York

Toronto, Free Press ;

Maxwell Macmillan Canada ;

Maxwell Macmillan International.

Makino, H., I. Ishii, et al. (1997). Development of navigation system for the blind using GPS and mobile phone combination, IEEE.F

Mintzberg, H. (1973). The nature of managerial work, Harper & Row.

Paulson, L. D. (2006). "TV comes to the mobile phone." Computer 39(4): 13-16.

Rohs, M. and B. Gfeller (2004). "Using camera-equipped mobile phones for interacting with real-world objects." Advances in Pervasive Computing: 265iV271.

Saponas, T., J. Lester, et al. (2008). "ilearn on the iphone: Real-time human activity classification on commodity mobile phones." University of Washington CSE Tech Report UW-CSE-08-04-02.

Saunders, M., P. Lewis, et al. (2009). Research methods for business students, Prentice Hall.

Schmidt, A., K. Aidoo, et al. (1999). Advanced interaction in context, Springer.

Schreuder, H., T. Gregoire, et al. (2001). "For what applications can probability and non-probability sampling be used?" Environmental Monitoring and Assessment **66**(3): 281-291.

Spektor, A. (October 27, 2011 10:33 PM Eastern Time). Strategy Analytics: Samsung Becomes World's Number One Smartphone Vendor in Q3 2011 Enhanced Online News. BOSTON.

Spiggle, S. (1994). "Analysis and interpretation of qualitative data in consumer research." Journal of consumer research: 491-503.

Wu, M., S. Garfinkel, et al. (2004). Secure web authentication with mobile phones, Citeseer.

莊懿妃, 蔡義清, et al. (2007). "以服務屬性預測新服務需求-以 3G 行動電話為例." 行銷評論 **4**(3): 289-310.

FEEDBACK ON YOUR PRESENTATION

QUICK PRESENTATION FEEDBACK			
GROUP:	RACHEL, SAM, LIN		
A	B	C	D
Are ideas presented connected with the aim of the presentation?	Are the ideas presented clear supported with evidence and logical argument?	Is it easy to follow & to understand? (Are the slides clear and easy to follow e.g. use of new pictures, words, graphs)	Overall impression (is it a group presentation etc.?)
40%	30%	20%	10%

<p>Comments</p> <p>Rachel – use the screen on the desk – then you can look at the audience and see the key parts of the PPT.</p> <p>Don't forget the opportunity to animate & add slide numbers</p> <p>Hypothesis – e.g., edu that family play a critical role in forming meanings towards work...</p> <p>CIT - Manage relationship – needs to be a critical situation.</p> <p>Qu – categories – add little more explanation to each – i.e, properties Qu – Table of groups/category – how derive? Qu – disbenefit...</p> <p>Paper:</p> <ul style="list-style-type: none"> - It is useful to express the research questions/objectives in separate sentences (see Bitner) - There appears to be a process in the analysis but the write-up is confused. Look for the opportunities talk about the details of the coding process. You need to communicate a process that is systematic, rigorous and fastidiously executed. At the moment many of those details are missing - You arrive at categories – good – but explain in more detail their dimensions/description. - The use of the figure (Bitner?) is helpful and is an opportunity to relate the findings to the literature. - Take the opportunity in the conclusion to reinforce how you have answered the questions, limitations and directions the work can go in next. <p>82%</p>			

FEEDBACK ON YOUR PRESENTATION

Grade: 0%