

Utilization of Smartphone

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Abstract: In this paper, university students have been surveyed in an effort to verify the usage status of smart phone. Based on survey data from 135 participants, the most preferred usage and usual usages of the smartphone are evaluated. The results indicate that the most important usage of smartphone is 'REAL-TIME COMMUNICATION' rather than 'TELEPHONE' or 'INTERNET SEARCH'. 'Study' gets the least response in question of usual usages of smartphone.

Keywords: smartphone, utilization

1 Introduction

Recently, usages of the smartphone have evolved variously from the mere telephone. The convergence of multi-media and mobile communications creates new device which can provide services which span over camera, game, mobile Internet, digital multimedia broadcasting, and so on. Hamp suggested a concept of "infotainment" with smart phone coverage. Zhang suggested a function of location based service and video sharing application on smart phone. Jung proposed eight functional attributes of smart phone, and presented most preferred functions are wireless Internet(25.3%), messaging(20%) and application(19.8%)

Many studies have documented smartphone applications in medical area. Also, many studies have proposed smartphone applications in education area. However, few studies have sought to verify the purposes of smartphone usage and preferences.

In this study, four-year university students have been surveyed to verify the preferences for the usages of smartphone. The obtained results are analyzed and reported. This study evaluates the usage of smartphone.

2. Verification of Usage of Smartphone

2.1 Survey methodology

Survey content. The survey is comprised of three categories: statistics of survey respondents, usages and perceived serviceability. Multiple-choice and 5-point Likert scale questions are employed. Survey categories and questions are listed in Table 1.

Table 1. Survey content

Category	Question
Statistics of respondents	Sex
	School year grade
Usage	Usual usages of smartphone(multiple choice)
	The most frequent usage of smartphone
Perceived serviceability	Perceived serviceability of usages

Statistics of survey respondents. We surveyed students during the period of December 26th, 2012 to January 4th, 2013 of M University in Korea, and received 135 replies. 96% of respondents possess smartphone. The ratio of male : female amongst the respondents is 56% : 44%, while the school year (freshman : sophomore : junior : senior) ratio is 25% : 27% : 32% : 16%.

Methodology. We analyzed descriptive statistics. For the multiple choice problems, the ratio is analyzed.

2.2 Survey Results

Usual usages of smartphone. Questions for usage are multiple choices of usual usages and the most frequent usage. More than 96% of respondents replied that they used 'REAL-TIME COMMUNICATION', and 89% replied 'INTERNET SEARCH'. 'TELEPHONE', 'LISTENING MUSIC', 'CAMERA' and 'WAY FINDING' got high replies of 86%, 81%, 78% and 78% each. However, only 8.5% of respondents replied that they 'STUDY' using smartphone. 'DMB TV WATCHING', 'SHOPPING', 'MOVIE WATCHING', and 'MINI HOMEPAGE' got low replies of 20%, 21%, 23% and 23% each. 'GAME' got only 58% of replies unexpectedly. Also, 'SMARTPHONE BANKING' got unexpectedly high replies of 54%.

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Table 2. Usual usages of smartphone(multiple choices)

Answers	Response
REAL-TIME COMMUNICATION	96.12%
MINI HOMEPAGE	23.26%
GAME	58.14%
LISTENING MUSIC	80.62%
SMARTPHONE BANKING	54.26%
STUDY	8.53%
DATE BOOK	37.21%
RESERVATION(ticket, transportation,...)	45.74%
DMB TV WATCHING	20.16%
MOVIE WATCHING	22.48%
CAMERA	78.29%
SHOPPING	20.93%
TELEPHONE	86.05%
INTERNET SEARCH	89.15%
WAY FINDING(map, navigation, ..)	78.29%
Others	18.6%

The most frequent usage of smartphone. The most frequent usage was ‘REAL-TIME COMMUNICATION’ which got dominant replies of 70%. The next frequent usage was ‘INTERNET SEARCH’ which got only 10%. The third one was ‘LISTENING MUSIC’ followed by ‘TELEPHONE’ and ‘DATE BOOK’ which got 5%, 4% and 4% each.

Table 3. The most frequent usage of smartphone

Answers	Response
REAL-TIME COMMUNICATION	69.77%
MINI HOMEPAGE	0.78%
GAME	1.55%
LISTENING MUSIC	5.43%
SMARTPHONE BANKING	0%
STUDY	0%
DATE BOOK	3.88%
RESERVATION(ticket, transportation,...)	0%
DMB TV WATCHING	0%
MOVIE WATCHING	0%
CAMERA	1.55%
SHOPPING	0%
TELEPHONE	3.88%
INTERNET SEARCH	10.08%
WAY FINDING(map, navigation, ..)	2.33%
Others	0.78%
Total	100%

3. Conclusions

We verified the most frequent usage and usual usages of smartphone based on survey data from 135 participants of a four-year university.

The results indicate that more than 96% of respondents used 'REAL-TIME COMMUNICATION', while 89% of respondents used 'INTERNET SEARCH' and 86% of 'TELEPHONE', and so forth. However, the most frequent usage of smartphone is 'REAL-TIME COMMUNICATION' which gets 70% of replies followed by 'INTERNET SEARCH' which gets only 10%, and 'LISTENING MUSIC' which gets 5%, and 'TELEPHONE' and 'DATE BOOK' which gets 4% each. The findings indicate that the most important usage of smartphone is 'REAL-TIME COMMUNICATION' rather than 'TELEPHONE'. However, 'STUDY' gets the least response in usual usage and the most important usage of smartphone.