

A Study on the Effect of Communication Functioning of Smartphones on Information Acquisition: The Case of South Korea

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ABSTRACT

Smartphones have become one of the most prevalent information devices in the current information environment. Although many people use smartphones for communication and information acquisition, these two functions are closely related and cannot be separated. However, many studies have focused on identifying each function of a smartphone independently. There are few studies that investigate the relationships between communication and information acquisition functions on smartphones. This research empirically analyzed and identified the relationships between these two functions of smartphones by conducting a survey. The results of the analysis showed that the activities for information acquisition make differences in communication on a smartphone. People who want to acquire more information tend to use a smartphone for communication purposes. Besides, communication activities on a smartphone also affect the acquisition of information. In addition, communication activities on a smartphone also affect the establishment of interpersonal relationships that lead to the acquisition of more information. From these results, it is identified that communication activities and information acquisition are interrelated when satisfying the information needs of smartphone users. Especially, communication activities on a smartphone positively affect people's information activities and enhance information acquisition.

Keywords: Smartphones, Communication, Information acquisition, Information activity

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1. INTRODUCTION

There are two major driving forces that have led to the current information environment: broad dissemination of wireless networks and the emergence of smart devices. Now, most people use various types of smart devices, including tablet PCs, smartphones, and wearable devices. By installing an operating system (OS) and connecting to wireless network, a smart device allows people to enhance their information activities, including communication with other people. Because a smart device can support multi-format communication with images and video, people now can communicate and interact with other people in more efficient and effective ways. With these strengths, most people around the world may use at least one of these devices and utilize them for various purposes.

A smart device also affects the utilization of information. Because a smart device can provide various informational applications optimized to those devices, people can expand their information activities. In addition, people can easily carry those devices, which means they can access and acquire various information in real time. By supporting real time information activities, including navigation, mobile banking, and e-commerce, smart devices are now recognized as one of the important information tools in the current wireless network environment.

Among the various types of smart devices, the smartphone is one of the most prevalent devices. The broad dissemination of smartphones has brought many positive influences throughout society. From the societal aspect, it enhances the overall quality of life of social members and may help to close the digital divide because most people can access and acquire information relatively easily through the use of smartphones. Much information is available on the Web and much mobile-only information is also provided. People can get this information through smartphones and communicate them with other people in real time.

Other than these social effects of smartphones, many research efforts have been conducted in order to verify the effects of smartphones on people's communication and information activities. Most research identified that the use of smartphones has positive effects on people's communication. People can acquire information in more effective and efficient ways through

communication on smartphones and enhance their information activities.

However, these functions of communication and information acquisition may not be separated because people can also acquire information through communication with other people. Although these smartphone functions are interrelated and cannot be separated, previous research usually focused on each function independently. There is little research that has investigated the relationships between communication and information acquisition on smartphones.

For these reasons, this research tried to empirically identify the relationships between these two functions of smartphones by conducting a survey. Especially, how using a smartphone affects people's communication and information acquisition is analyzed.

2. BACKGROUND OF RESEARCH

2.1. Smart Devices as Information Tools

In the current information environment, utilization of information premises the use of information devices that can implement data and information. Since the 1980s, the personal computer has been one of the representative information devices that allow people to create, manage, and communicate information. However, a smart device connecting to a wireless network has now become one of the most prevalent devices when people utilize information.

A smart device can be defined as a portable information device that uses Internet protocols such as 3G, 4G Long-Term Evolution (LTE), and Wi-Fi, and connects to a wireless network (Davy, 2003). It also installs an operating system (OS) and can process data and information. With these functions, a smart device is capable of voice and video communication, data processing, and Internet browsing, which we usually conduct on desktop computers fixed to a specific place. Based on these strengths, a smart device allows people to enhance their information activities and access information in multimedia formats beyond time and space limitations (Yoon, 2013, p. 11).

2.2. Characteristics of Smartphones

Currently, many types of smart devices are being used, including smartphones, tablet PCs, and wearable

devices. Among these smart devices it is the smartphone that most people own at least one of.

A smartphone is commonly referred to as the device that combines the strengths of a mobile phone and a Personal Digital Assistant (PDA). That is, a smartphone combines the existing functions of a cell phone and access to wireless networks for data communication. In addition, a variety of communication tools such as mobile email, Short Message Service (SMS), and messenger applications, as well as traditional phone calls are broadly and popularly used on a smartphone. Although the functions of a cell phone are limited to text and sound, a smartphone can support video and multi-format information and expands the paths of communication.

On a smartphone, people can also utilize a variety of information in real time, including mobile banking, e-commerce, and Social Network Service (SNS). Now, a smartphone is used not just for communication, but also for information acquisition. From this perspective, a smartphone has evolved to become one of the information tools that can support a variety of information activities.

2.3. Popularization of Smartphones

The smartphone has now become one of the most prevalent information devices in the current informa-

tion environment. Some research even insists that the population which uses smartphones surpasses that of desktop computers.

As of July 2015, 68% of American adults have at least one smartphone, according to the statistics conducted by PEW research Center (see Fig. 1). It is similar to the number of people who own desktop computers. In addition, the ownership of smartphones is rapidly increasing, compared to that of other devices.

In South Korea, the ratio of owning a smartphone is higher than that of the U.S. As of June 2014, 70.12% of mobile phone users use a smartphone. In addition, 84.3% of wireless network users mainly use smartphones, according to the Korea Internet & Security Agency (KISA) (KISA, 2015).

One of the reasons for this popularization of smartphones is that a smartphone supports both audio and video communication and is capable of processing multi-format data and information by using one device. In addition, people can easily carry the device and use it to satisfy their information needs anytime and anywhere. With these strengths, more and more people use smartphones as their information tool.

This broad dissemination of smartphones has led to the diversification of the purpose of using the devices. According to research conducted by KISA, the general purposes of using smartphones include information

% of American adults who own a ...

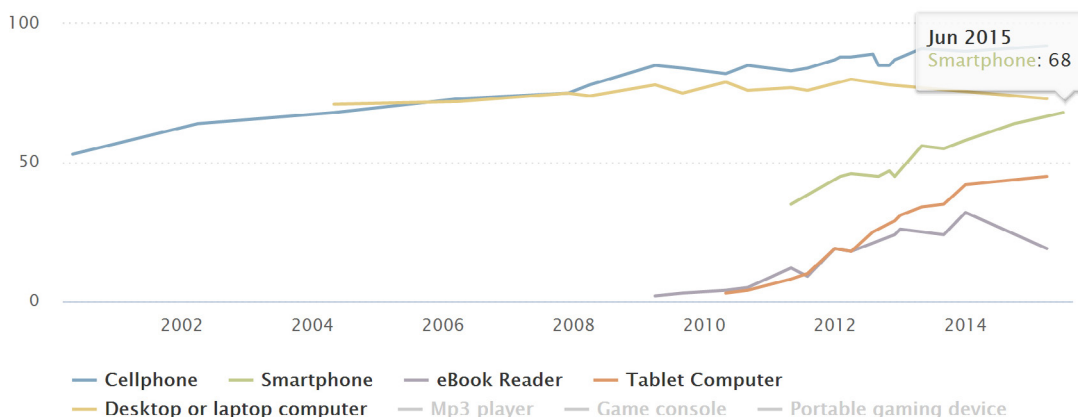


Fig. 1 Mobile device ownership over time

acquisition, communication, entertainment, map services, navigation, and e-commerce. Specifically, this research shows that data or information acquisition (99.8%) is the major purpose of using smartphones, followed by communication (99.5%) (KISA, 2015). Based on these results, information acquisition and communication are two of the major functions that most people use on their smartphones.

In this context, many researchers identified that the use of a smartphone positively affects people's communication and information acquisition (Adler, 2013). Baym (2010) verified that digital communication on a smartphone enhances community relationships. Baym also insisted that "the more you communicate with people using smart devices, the more likely you are to communicate with those people face to face." Similar to this, Brignall and van Valey (2005) identified that a significant portion of youths are actively using the Internet and mobile devices as an important form of social interaction.

From the perspective of information acquisition, smartphones support a wide variety of information activities such as text messaging, email, Internet access, wireless communication, and photography, through which people usually acquire information (Nath & Mukherjee, 2015). The broad dissemination of smartphones has also resulted in the change of perception of information acquisition. By using a smartphone, people can enhance the quality of information, whereas the quantity of information has had important meaning in the era of desktop computers (Aaron, 2011; Hargittai, 2010). People can also communicate with other people, share information, and establish social relationships by using a smartphone (Andromeda, 2012). In addition, a smartphone has improved the environment of information acquisition by providing various strategies to acquire information. Through the use of a smartphone, people actively control their information activities and make themselves evolved into information providers as well as information consumers (Hartittai & Hinnant, 2008).

As mentioned above, many research efforts identified that the smartphone has positive effects on people's communication and information acquisition. However, communication and information acquisition on a smartphone are interrelated with each other because people can acquire information through com-

munication with other people. A smartphone may also facilitate communication, which results in more information acquisition. Therefore, communication and information acquisition on smartphones should be considered as a continuative process, not as separated information activities. However, there is little research that investigates the relationships between these two functions of a smartphone.

This research tried to identify the relationships between communication and information acquisition when using smartphones. Especially, it is analyzed how communication activities on a smartphone affect information acquisition, and vice versa. A survey was conducted in order to empirically identify the relationships between these two functions on a smartphone.

3. METHODOLOGY

In order to identify the relationships between communication and information acquisition on a smartphone, statistical analysis was applied, which is based on the data set collected by conducting a survey questionnaire.

3.1. Survey Questionnaire

The questionnaire consisted of three phases (see Table 1). First, the behaviors of using a smartphone were analyzed. Second, the status of using a smartphone for communication purposes was analyzed. Third, the status of information acquisition on a smartphone was investigated. By combining the results of these phases, the relationships between communication and information acquisition and the directions of the effects will be explained.

3.2. Data Collection and Data Analysis

A smartphone is an information tool that is broadly used by the entirety of society. However, there may be different patterns in using the device according to the characteristics of different user groups. Teenagers are expected to use a smartphone mostly for entertainment purposes such as games, music, and movies, rather than information related purposes. The generation over their 60s may not fully utilize various functions of a smartphone because they may be relatively more familiar with traditional information tools. For

these reasons, this research limited the major targets of the questionnaires from people in their 20s to 50s in South Korea.

A total of 230 questionnaires were distributed from October 17 to October 31, 2015. The collected data set was used for the analysis of this research.

Once all the questionnaires were collected, the Statistical Package for the Social Sciences (SPSS) 23.0 for Windows was used to analyze the collected data set. This research used the Pearson’s Correlation method and multiple regression analysis in order to investigate the relationships among variables.

In terms of reliability, the analysis of the internal consistency reliability in the collected data set with 230 questionnaires showed an acceptable level of reliability (Cronbach’s alpha=.623).

4. RESULTS OF ANALYSIS

4.1. Socio-Demographic Statistics

The participants of the survey questionnaire consist-

ed of 76 males (33.5%) and 151 females (66.5%). With regard to the age of the participants, the results showed that ages were relatively evenly distributed (see Table 2).

4.2. Use Behavior of Smartphones

The use behaviors of smartphone users can be considered from several aspects. Among these, this research focused on three aspects, including smartphone data plans, usage time of smartphones, and the purposes of using smartphones, because these aspects may affect the patterns of smartphone use.

The data plan implies the capability of utilizing a smartphone because a higher data plan may provide more access to wireless networks and data communication. One thing that we should consider, however, is that the data plan for a smartphone may not clearly show the use behaviors of smartphone users because it may be related to the economic status of those people. Nevertheless, it can be applied as one of the criteria of identifying use behavior for a smartphone.

As shown in Table 3, most participants (90.9%, N=209) use data plans for their smartphones priced

Table 1. Items for Survey Questionnaire

Category	Survey Items	Number of Items
Socio-Demographic	Gender	3
	Age	
	Job	
Use behavior of smartphone	Data plan for a smartphone	3
	Usage time of a smartphone	
	Purpose of using a smartphone	
Communication	Purpose of communication on a smartphone	3
	Necessity of a smartphone for communication	
	Establishment of interpersonal relationship	
Information acquisition	Device preference for information acquisition	3
	Information activities on a smartphone	
	Information acquisition on a smartphone	

under 70,000 Korean won. In contrast, 23 of the participants (10.0%) use data plans set under 30,000 Korean won, which may be an obstacle to sufficiently utilizing the functions of their smartphones. However, most people may be able to use data communication and various functions of their smartphone relatively sufficiently without concerns for usage payment.

With regard to smartphone usage time, 72 of the participants use their smartphone for three to four hours per day (31.3%), which is the highest ratio (see Table 4).

From the perspective of the purposes of using smart-

phones, messenger services occupies the highest ratio (30.2%, N=193), followed by access to the Internet (25.5%, N=163). The use of communication applications, including instant messaging, messenger services, Social Network Service (SNS), and email, occupies 46.64% of the participants (N=298 of 639). Besides this, the number of participants who use a smartphone for information acquisition purposes, including access to the Internet, Education, Navigation, and Map and Transportation information, occupies 33.18% (N=212 of 639) (see Table 5).

Table 2. Socio-Demographic Analysis

Gender	Frequency (N)	Percentage (%)
Male	76	33.5
Female	151	66.5
Total	227	100.0
Age	Frequency (N)	Percentage (%)
20-29	77	33.9
30-39	56	24.7
40-49	40	17.6
50-59	54	23.8
Total	227	100.0

* N: Number of respondents

Table 3. Data Plans for Smartphones

Data Plan (Korean won)	Frequency (N)	Percentage (%)
Under 30,000	23	10.0
30,000-50,000	98	42.6
50,000-70,000	88	38.3
70,000-90,000	9	3.9
Over 90,000	12	5.2
Total	230	100.0

* N: Number of respondents

Table 4. Usage Time of Smartphone per Day

Time of Using Smartphone	Frequency (N)	Percentage (%)
Under 1 hour	38	16.6
1 hours - 2 hours	35	15.2
2 hours – 3 hours	47	20.4
3 hours – 4 hours	72	31.3
More than 4 hours	37	16.1
Missing values	1	0.4
Total	230	100.0

* N: Number of respondents

Table 5. Purposes of Using Smartphones (multiple choice)

Purpose	Frequency(N)	Percentage (%)
Instant Message	46	7.2
Messenger Services	193	30.2
Internet	163	25.5
Education Information	12	1.9
Navigation and Maps	13	2.0
Mobile Banking	17	2.7
Social Network Service (SNS)	48	7.5
Email	11	1.7
Music and Movie	46	7.2
Photo	42	6.6
Transportation information	21	3.3
Others	27	4.2
Total	639	100.0

* N: Number of respondents

Based on these results, it is identified that a smartphone is mainly used for communication and information acquisition. In addition, the range of information that people acquire through the use of a smartphone

varies from static information on the Web to real time information, including navigation, maps, transportation information, and mobile banking.

4.3. Smartphones for Communication Purposes

This research analyzed the use of a smartphone for communication purposes. Even if people use a smartphone for communication with other people, the specific purposes would be different because a smartphone can be used in various ways of communication. Table 6 shows different purposes of communication using a smartphone.

As shown in Table 6, most people use a smartphone to maintain their existing relationships (52.6%, N=121). Although people can make face-to-face communication, they use a smartphone as an alternative tool to communicate with those people who already have relationships with them.

Information acquisition is another major purpose of using a smartphone. Although people can access the Internet and use other applications to get information, they also use the communication functions of a smartphone for acquiring information. From this result, it can be assumed that communication using a smartphone also affects and enhances information acquisition.

From a different perspective, the participants agreed that a smartphone is necessary when communicating with other people. They thought that a smartphone enhances the capability of communication and may help to establish new relationships with other people (see Table 7).

As shown in Table 7, 172 of the respondents (74.8%) agreed that a smartphone provides more ways of communication, compared to other devices. Because a smartphone can support communication with video and multi-format data, it is more effective for communicating with other people and they can express their emotions and opinions in more efficient ways.

Communication on a smartphone may also affect the establishment of interpersonal relationships. It may have important meanings because more communication can lead to expanded paths to get information by using a smartphone. From this perspective, this research conducted Pearson's Correlation analysis in order to identify whether the communication functions of a smartphone effect the establishment of interpersonal relationships (see Table 8).

As a result, the communication using a smartphone positively affects the establishment of interpersonal

relationships ($r=.511$). At this point, it should be noted that an interpersonal relationship the possibilities for getting more information. Therefore, it is identified that the use of a smartphone for communication can lead to the expansion of information acquisition.

4.4. Use of Smartphones for Information Acquisition

Many people are now using a smartphone for accessing information. From this perspective, this research analyzed whether participants prefer personal computers or smartphones for information acquisition. As a result, 144 of the participants (62.6%) prefer smartphones to personal computers (see Table 9).

This may be because of the portability of a smartphone, where people can access the Internet anytime and anywhere by using a smartphone. Because of this flexibility, it can be assumed that the information activities of people can be enhanced through the use of a smartphone. From this perspective, this research analyzed whether the use of a smartphone enhances information activities (see Table 10).

As shown in Table 10, the participants agreed that the use of a smartphone enhances their information activities, compared to other information tools. Especially, 192 of the participants (83.5%) responded that they can acquire more information using a smartphone.

From a different perspective, this research analyzed whether people need a smartphone to acquire information, in order to verify the capability of smartphones in information acquisition (see Table 11).

Based on these results, it is identified that the use of a smartphone may positively affect information acquisition. 193 of the participants (83.9%) agreed that the use of smartphones may help people to acquire more information in efficient ways. From these results, it is assumed that a smartphone enhances information activities and information acquisition of its users. However, information activities and information acquisition are different but may be closely related from the perspective of the use of a smartphone. In order to verify the relationships between these two aspects, Pearson's Correlation analysis is conducted (see Table 12).

As shown in Table 12, the preference of a smartphone affects information activities ($r=.244$) and the people who prefer a smartphone need a smartphone for their information acquisition ($r=.339$). They thought that

Table 6. Purposes of Communication Using a Smartphone

Purpose of Communication	Frequency (N)	Percentage (%)
Establishing new relationships	10	4.3
For entertainment	26	11.3
Information acquisition	72	31.3
Keeping existing relationships	121	52.6
Other	1	0.4
Total	230	100.0

* N: Number of respondents

Table 7. Enhancement of Communication through Smartphones

Smartphone on Communication	Frequency (N)	Percentage (%)
Strongly Disagree	4	1.7
Disagree	5	2.2
Uncertain	49	21.3
Agree	112	48.7
Strongly Agree	60	26.1
Total	230	100.0

* N: Number of respondents

Table 8. Correlations between Communication on a Smartphone and Interpersonal Relationships

Correlations

		Interpersonal relationships	Communication on a smartphone
Interpersonal relationships	Pearson Correlation	1	.511**
	Sig. (2-tailed)		.000
	N	230	230
Communication on a smartphone	Pearson Correlation	.511**	1
	Sig. (2-tailed)	.000	
	N	230	230

** . Correlation is significant at the 0.01 level (2-tailed).

Table 9. Smartphone vs. Personal Computer

Preference	Frequency (N)	Percentage (%)
Personal computer	86	37.4
Smartphone	144	62.6
Total	230	100.0

* N: Number of respondents

Table 10. Enhancement of Information Activities

Enhancement of information activities	Frequency (N)	Percentage (%)
Strongly Disagree	0	0.0
Disagree	4	1.7
Uncertain	34	14.8
Agree	129	56.1
Strongly Agree	63	27.4
Total	230	100.0

* N: Number of respondents

Table 11. Enhancement of Information Acquisition

Smartphone on Communication	Frequency (N)	Percentage (%)
Strongly Disagree	0	0.0
Disagree	5	2.2
Uncertain	32	13.9
Agree	135	58.7
Strongly Agree	58	25.2
Total	230	100.0

* N: Number of respondents

Table 12. Correlations between Information Activities and Information Acquisition

		Correlations		
		Device preference	Information activities	Information acquisition
Device preference	Pearson Correlation	1	.244**	.339**
	Sig. (2-tailed)		.000	.000
	N	230	230	230
Information activities	Pearson Correlation	.244**	1	.641**
	Sig. (2-tailed)	.000		.000
	N	230	230	230
Information acquisition	Pearson Correlation	.339**	.641**	1
	Sig. (2-tailed)	.000	.000	
	N	230	230	230

** . Correlation is significant at the 0.01 level (2-tailed).

their ability of information acquisition is enhanced by using a smartphone. Besides this, it is identified that people who conduct more information activities using a smartphone acquire more information ($r=.641$). Based on these results, the use of a smartphone may affect positively on people’s information activities and enhance the ability of information acquisition.

4.5. Relationship between Communication and Information Acquisition

One of the major functions of a smartphone is to support communication among people without limitations of time and space. The use of a smartphone enhances communication, which establishes new interpersonal relationships as well as keeping existing relationships. These communication functions of smartphones also affect the information activities of their users. People can acquire more information through the use of a smartphone and conduct various information activities in real time.

However, these functions are not separated because people’s information acquisition may also be conducted on the process of communication. Therefore, it might be necessary to identify the relationships between communication and information acquisition, which may complete people’s information activities.

This research conducted multiple regression analysis in order to identify relationships across variables (see Table 13).

As shown in Table 13, information acquisition makes differences in communication on a smartphone ($p\text{-value}=.013$). From this result, it is identified that people who want to acquire more information tend to use a smartphone for communication with other people. In this context, it is assumed that communication on a smartphone positively affects the acquisition of information. In contrast, information activities do not affect the communication conducted on a smartphone ($p\text{-value}=.086$).

With regard to interpersonal relationships, information acquisition also affects the establishment of interpersonal relationships on a smartphone ($p\text{-value}=.017$). It means that people who want to acquire information tend to establish relationships with other people in order to make more paths to get information. This result implies that the interpersonal relationship may positively affect the acquisition of information and people can acquire information more efficiently through established interpersonal relationships on a smartphone (see Table 14). In contrast, information activities do not have significant meaning in establishing interpersonal relationship on a smartphone ($p\text{-value}=.140$).

From the perspective of information acquisition, both interpersonal relationships established through the use of a smartphone ($p\text{-value}=.045$) and communication activities using a smartphone ($p\text{-value}=.008$) positively affect information acquisition on a smartphone. This result implies that acquisition of informa-

Table 13. Effect of Information Activities and Information Acquisition on Communication
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	2.216	.351		6.315	.000		
Information activities	.172	.100	.141	1.722	.086	.589	1.699
Information acquisition	.254	.101	.207	2.516	.013	.589	1.699

a. Dependent Variable: communication on a smartphone

Table 14. Effect of Information Activities and Information Acquisition on Interpersonal Relationships
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	2.127	.327		6.501	.000		
Information activities	.138	.093	.123	1.482	.140	.589	1.699
Information acquisition	.225	.094	.198	2.394	.017	.589	1.699

a. Dependent Variable: communication on a smartphone

tion can be enhanced through communication on a smartphone, which may also affect the establishment of interpersonal relationships. Synthetically, communication activities on a smartphone affect the establishment of interpersonal relationships and eventually affect the enhancement of information acquisition (see Table 15).

Similar to this result, interpersonal relationships and communication on a smartphone also affect the information activities of smartphone users (see Table 16). As shown in Table 16, interpersonal relationships established through the use of a smartphone positively affect information activities (p-value=.021), which can also enhance the acquisition of information. Besides this, communication on a smartphone also positively affects information activities (p-value=.004). Based on these results, communication on a smartphone may help establish interpersonal relationships, which can enhance information activities, especially information

acquisition, through the use of a smartphone.

Associating these results with the use behaviors of smartphones, people who prefer a smartphone to a desktop computer conduct more communication activities, which is connected to more information activities, especially information acquisition. From the perspective of the usage time of a smartphone, more use of a smartphone positively affects the establishment of interpersonal relationships, communication activities on a smartphone, and overall information activities which lead to acquiring more information.

From different perspectives, data plan is positively related to communication activities and information acquisition on a smartphone, although usage time of a smartphone is closely related to the data plan for a smartphone. In contrast, data plan does not affect the establishment of interpersonal relationships.

Synthetically, smartphones generally affect the vari-

Table 15. Effect of Interpersonal Relationships and Communication on Information Acquisition
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	2.972	.239		12.436	.000		
Interpersonal relationships	.132	.065	.149	2.019	.045	.739	1.353
Communication on a smartphone	.163	.060	.198	2.689	.008	.739	1.353

a. Dependent Variable: communication on a smartphone

Table 16. Effect of Interpersonal Relationships and Communication on Information Activities
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	2.855	.234		12.188	.000		
Interpersonal relationships	.149	.064	.169	2.321	.021	.739	1.353
Communication on a smartphone	.172	.059	.211	2.894	.004	.739	1.353

a. Dependent Variable: communication on a smartphone

ous information activities of their users. Although the purposes of using a smartphone vary, communication activities on a smartphone positively affect people’s information activities and enhance information acquisition. Especially, interpersonal relationships established through the use of a smartphone enhance overall information activities, which indicated that communication activities affect information acquisition. However, economic status may affect the capability of using a smart device from the perspective of data plan for a smartphone. Therefore, economic status is still a factor in information activities on a smartphone, although the smartphone remains one of the most prevalent information devices in the current information environment.

5. DISCUSSION AND CONCLUSION

The reason why people use information devices is to acquire, share, and utilize information in order to satisfy their information needs. A smartphone is one of the information devices that can achieve these purposes by supporting the communication activities and information acquisition of its users. However, these functions of a smartphone may not be separated because people can also acquire information through communication with other people. From this perspective, this research investigated the relationships between communication and information acquisition on the use of smartphones by conducting a survey research. Especially, this research focused on how communication activities on a

smartphone have an effect on information acquisition.

The purposes of using a smartphone vary from entertainment purposes to informational purposes. Among these, communication activities and information acquisition are two of the most general purposes of using a smartphone.

For communication activities, people use a smartphone in order to keep their existing interpersonal relationships and to acquire more information through the relationships. Although people can get information by accessing the Internet and other information applications on a smartphone, they also use the communication functions of a smartphone for acquiring information. From this perspective, people agreed that a smartphone is necessary when communicating with other people so that they can acquire more information in real time.

For the purpose of information acquisition, people can use a smartphone to access the Internet by connecting to a wireless network. Because of this flexibility of connecting to networks, people can enhance their information activities in various ways. In addition, people agreed that the use of a smartphone may help them to acquire more information in efficient ways because they can acquire information anywhere in real time. Because of these reasons, most people prefer smartphones to desktop computers when acquiring information.

These functions of communication and information acquisition on a smartphone are closely related because people can acquire information through communication activities with other people. The analysis of these two functions of a smartphone shows that the activities for information acquisition make differences in communication activities on a smartphone. That is, people who want to acquire information tend to use a smartphone for communication purposes. Besides this, communication activities on a smartphone also affect the establishment of interpersonal relationships that lead to the acquisition of more information. From these results, communication activities and information acquisition are interrelated when satisfying the information needs of smartphone users.

Associating these results with the use behaviors of smartphones, a higher data plan leads to more active communication activities which results in more information acquisition. The people who prefer

smartphones to desktop computers conduct more communication activities, which also leads to more information acquisition. In addition, people who spend more time using a smartphone tend to establish interpersonal relationships more actively, which is also connected to more information acquisition. Based on these results, it is identified that the use of a smartphone for communication purposes positively affects information acquisition on a smartphone.

Synthetically, smartphones are currently used to satisfy people's information needs in different ways from traditional information activities by expanding the paths of information acquisition through the communication activities on a smartphone. The analysis shows that communication activities and information activities are closely related when satisfying people's information needs. Therefore, it might be necessary to consider these functions of a smartphone as not separated activities but as a continuative process that combines various information activities.

However, the results of this research may not be generalized because the range of this research is limited to the user groups in South Korea. In spite of this limitation, the smartphone is becoming one of the most important information devices in the current information environment. Many people are now using smartphones for various purposes so that their information activities are enhanced. Therefore, the results of this research may represent much to verify the effect of using a smartphone on people's information activities.

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